IN RE NATIONAL PRESCRIPTION OPIATE LITIGATION

MDL No. 2804

Case No. 17-md-2804

Judge Dan Aaaron Polster

THIS RELATES TO:

THE COUNTY OF CUYAHOGA, OHIO, ET AL VS. PURDUE PHARMA L.P., ET AL CASE NUMBER 18-OP-45004

VIDEO DEPOSITION OF

CLAIRE KASPAR

JANUARY 15, 2019

DEPOSITION HELD AT KELLEY & FERRARO

950 MAIN AVENUE, SUITE 1300

CLEVELAND, OH 44113

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THE VIDEOGRAPHER:
Kurt Henschel

INDEX

VIDEO DEPOSITION

THE VIDEOGRAPHER: Today's date is January 15th, 2019. We are on the record at 9:04. We are here in the matter of National Prescription Opiate Litigation. This deposition is taking place in Cleveland, Ohio. Would counsel please identify themselves for the purpose of the record.

MR. GALLUCCI: Anthony Gallucci on behalf of Cuyahoga County.

MS. RANJAN: Brandy Ranjan on behalf of Wal-Mart.

MS. O'GORMAN: Debra O'Gorman on behalf of the Purdue defendants.

MR. EMCH: Al Emch on behalf of AmerisourceBergen Drug Corporation.

MR. RICE: Justin Rice from Tucker Ellis on behalf of Janssen and Johnson and Johnson.

THE VIDEOGRAPHER: And on the telephone, please?

MS. HAJIAN: On behalf of Endo and Par.

THE VIDEOGRAPHER: Would the court reporter please swear in the witness.

CLAIRE KASPAR,

of lawful age, having been first duly sworn to testify the truth, the whole truth, and nothing but the truth in the case aforesaid, deposes and says in reply to oral interrogatories, propounded as follows, to-wit:

EXAMINATION

BY MS. RANJAN:

Q Good morning, Miss Kaspar. We met off record. My name is Brandy Ranjan, I'm from the law firm of Jones Day and I represent Wal-Mart in this matter. I will be asking you some questions today.

To start, have you ever had your deposition taken before?

A I have not.

Q Okay. So then I just want to cover a few ground rules that will hopefully make today go more smoothly. Your counsel probably covered these with you too, but just so we are on the same page.

First of all, you will see there is a court reporter here today. He is taking down everything that both of us say.

So that means whenever I'm speaking, you can't speak and vice versa. So we can try not to speak over each other, does that make sense?

A Yes.

Q Similarly, he can't record down things like nods of the head or uh-huhs because those just won't come through on the record. So if you could try to make your answers oral and yes, no, those type of responses, that would be great.

If at any time during the deposition you need to take a break, that's totally fine. This is not a marathon, it is not an endurance test. We can take a break at any time. I will just ask if there is a question pending, you answer it and we can go off the record and take a break.

A Okay.

Q Does that make sense?

A Yes.

Q You let me know if you need to take a break for any reason?

A Yes.

Q And if I ask you any kind of a question that doesn't make sense to you, you need me to clarify it, you didn't understand, anything of that nature, please let me know and I will rephrase my question, does that make sense?

A Yes.

Q And if you don't ask me to rephrase my

questions, I will assume that you understood them?

A Okay.

Q Is there any reason why you can't testify fully and truthfully here today?

A No.

Q You are not taking any kind of medication that would prevent your recall or your ability to testify fully?

A No.

Q You understand that you are under oath?

A Yes.

Q What does that mean to you?

A Um, that I am on the record and everything that I say will be true.

Q Great. What, if anything, did you do to prepare for your deposition today?

A I looked at print-outs of a few of the presentations and publications that I've made in regards to opioids.

Q Do you remember what specifically?

A Um, there was a poster that talked about the prevalence and increase of heroin overdoses from 2006 to 2011. I don't remember the exact title of it, but that's the gist of what that poster was about.

Page 10

I looked at a poster presentation that discussed the formation of 6-acetylmorphine when you combine morphine and aspirin.

I also looked at a publication about that same topic.

Q I'm sorry to interrupt you. Was that a paper that you wrote or a paper that someone else wrote?

A I wrote that paper.

Q Okay.

A I also reviewed a publication that Dr. Gilson wrote that I was also a co-author on and --

Q What was the topic of that presentation?

A That one was about the heroin, I might have said heroin epidemic in Cuyahoga County, it was something along those lines.

I reviewed a poster presentation that I presented about dihydrocodeine. I reviewed a poster presentation that I presented about unusual heroin overdoses or explanations for those unusual overdoses.

Q What was the year of that publication?

A That, I presented that in 2014, in October of 2014. So I believe made that poster in 2014

Page 11

also.

Q Okay. Was that the title of the poster, unusual --

A I can't remember exactly what the titles are, but it was something along those lines.

Q Do you remember generally what that poster discussed?

A That poster was to help explain a few cases that we had in our office where they looked like they were going to be heroin overdoses, but then our toxicology results didn't necessarily reflect that.

So, for instance, two of them have very low concentration of morphine and that was all that we found related to heroin and we considered those to be lingering overdoses.

A couple of them turned out to be Fentanyl overdoses. This was probably around when we started to see the Fentanyl coming back into the area with the heroin.

Um, and then a couple of the cases we were unable to determine what the individuals injected, but they believed that they had injected heroin.

Q Okay. I'm sorry to interrupt. Did you

Page 12

review anything else in preparation for your deposition?

A Um, I reviewed a publication about lingering heroin overdoses or opioid overdoses. I believe that is all of the documents that I looked at.

Q Did you meet with anyone to prepare for your deposition today?

A I did.

Q Who did you meet with?

A Anthony Gallucci.

Q When did you meet with him?

A Yesterday.

Q For how long?

A Maybe two and a half hours.

Q Was anyone else present at that meeting?

A No.

Q Was there anyone on the phone?

A No.

Q Other than meetings, did you discuss your deposition today with anyone else?

A Just that I had one, but.

Q Who did you discuss that with?

A With my, with the chief toxicologist in our office.

Page 13

Q Dr. Gilson? Not the chief toxicologist, he's the medical examiner, obviously, right?

A Yes.

Q Who is the chief toxicologist?

A His name Dr. Luigiano Apollonio. L-U-I-G-I-A-N-O, and then Apollonio, like Apollo. So I don't know and then O-N-I-O, Apollonio. Eric Lavins is my supervisor. I also talked to him letting him know that I had this deposition.

Q And those were just scheduling type of conversations?

A Yeah, and just casual letting them know that I have this, yeah, that was it. So, yes, to let them know I won't be in the office and just, I don't know, conversational I have to do this.

Q Okay. Did you speak to your, do you have a spouse or significant other?

A I do.

Q Did you speak to him or her about your deposition today?

A Um, he just knows that I have a deposition.

Q Okay. Anyone else?

A Huh-uh.

Q Okay. Did you talk to Dr. Gilson about

Page 14

his deposition yesterday?
A I did not.
Q Or about anything related to this lawsuit?
A No.
Q Did you review any deposition testimony in preparation for your deposition today?
A No.
Q Did you review any legal filings in preparation for your deposition today?
A No.
Q We talked briefly before we went on the record about your commute, so sounds like you live in Cleveland?
A I do.
Q Can you please give us your residential address?
A I live at 9817 Tamarack Trail in Brecksville, Ohio, 44141.
Q All right. What is your current occupation?
A I work as a Forensic Toxicologist III at the Cuyahoga County Medical Examiner's Office.
Q And generally speaking, what are the duties of a Forensic Toxicologist III?
A My typical duties are to extract the drugs

Page 15

from biological specimens on either postmortem medical examiner cases. We also do police work. So we will do DUI cases and drug facilitated sexual assault cases.

So I perform the lab work to extract the drugs from these biological samples. I will write up the, write up and process all of the data that comes along with any extraction procedure that I perform. I also review other analysts data that they have prepared. And we do method validations, we do method development, but my typical day would be extracting these cases and then reviewing other people's work.

Q What is your educational background?
A I have a bachelor's degree in chemistry pre-medicine from Ohio University. I graduated from there in December of 2003. I also have a minor in psychology.
Q Do you hold any licenses or certifications?
A I do. I am certified by the State of Ohio to perform drug and alcohol testing. I think it is Ohio Department of Health that gives us those certifications.
Q When did you receive that certification?

Page 16

A I don't remember the exact date that I received it. So I began working at, it was at the coroner's office originally that was in 2004 and the requirement for the alcohol testing is to have worked in a laboratory for at least six months before you can get that certification. And then for the drug certification, you have to have worked in a laboratory for at least a year.

So at some point in 2005, I'm guessing, is when I first received the certificates and then each year we renew them.

Q Has your certificate ever lapsed?
A No.
Q Have you ever taken a certification test and not passed?
A No.
Q Other than what you have described to me so far, do you have any other kind of specialized training?
A Um, no. Well, we have training in our workplace to actually like learn how to the assays, but no other educational background.
Q Okay. So you said that you started your career in 2005 at the coroner's office?
A 2004.

Page 17

Q 2004?
A May of 2004.
Q And that was the coroner's office here in Cleveland?
A Yes, it is same office I currently work in, it just was a coroner's office back then and now we're medical examiners.
Q The difference between a coroner's office and medical examiner's office is essentially that a coroner is elected, while a medical examiner is appointed, is that accurate?
A Yes.
Q Have you worked your entire career at the Cleveland, either coroner's office or medical examiner's office?
A I have not. I worked at the coroner's office from 2004 until September of 2007. I moved to Maryland and worked at the State Medical Examiner's Office in Baltimore in their toxicology department. I worked there from September of 2007 until July of 2010. And then I moved back to Cleveland and I started my current job in July of 2010. It was still the coroner's office at that point, but medical examiner's office now.
Q During your first, I will call it your

Page 18

first stint at the coroner's office here in Cleveland, from approximately 2004 to 2007, what was your position then?
A Um, I think that it was called forensic chemist back then. We did not have the different steps of like Forensic Scientist I, II and III like we have now. I'm pretty sure it was just forensic chemist.
Q Who were you reporting to at that time?
A Our chief toxicologist was Amanda Jenkins and Eric Lavins was still the supervisor back then. And the coroner was Dr. Elizabeth Balraj.
Q Why did you decide to leave the Cleveland coroner's office and go to Maryland?
A My husband was in school in Maryland and I found out that a position was opening at their medical examiner's office doing exactly what I do here in Cleveland. So I decided to move out there and try it out there and see how I liked it.
Q When you were in Maryland, did you do essentially the same kind of work that you did here in Cleveland?
A Yes, the exact same work.
Q And then what made you decide to come back to Cleveland in July 2010?

Page 19

A Um, well, I just love Cleveland. So I wanted to move back home and my husband is actually from this area too. And somehow I saw that there was a position opening back in the toxicology lab here. So I applied for that and got the position and moved back, and then my husband ended up once he finished school coming back here.
Q When you came back to Cleveland, was it the medical examiner's office then back in July 2010?
A No, it was still the coroner's office at that point.
Q When was that changed?
A I think in 2011.
Q Okay. So when you came back to Cleveland coroner's office in July 2010, what was your position at that time?
A Um, I believe back then there still were not any steps. So, um, I think they were calling them forensic scientist at that point, but there was no I, II or III at that point.
Q Okay. At that time did you have anyone reporting to you, were you supervising anyone else's work?
A Um, I don't believe so. They don't even

Page 20

consider, so us reviewing the data of other analysts, they don't consider us to be supervising them, that's something that anybody who is signed off on a particular assay is able to review other people's data who have done that same assay. But even back then, I don't think I was even reviewing data because I'm pretty sure the chief toxicologist and supervisor were doing all the data review.
Q Okay. And then at some point you became, instead of a forensics scientist, forensic, you have to remind me of the title, Forensic Toxicologist III?
A It is Forensic Scientist III and then in toxicology.
Q When was that changed?
A That happened in 2015.
Q Was that a promotion?
A That was, they had us all fill out CPQs to determine what position to put everybody in. So I believe that was when they came up with the different levels of I, II and III. And then originally came back saying that I was Forensic Scientist II. One of my other co-workers as well, they said Forensic Scientist II for her as well.
Our chief toxicologist said, no, I

Page 21

had anticipated, I wanted you guys to be IIIs.
So then we appealed that and sometime, I want to say maybe around May of 2015 is when the decision on my appeal was made and they decided that I would be a Forensic Scientist III.
Q Who is the they in the statement you were just making?
A The personnel review committee, I believe it is the PRC. And it is with the county.
Q Okay. And you refer to a CPQ, what is that?
A I don't remember exactly what that stands for, but that was a really long questionnaire that they used to try to determine based off of how the job descriptions were set up. They tried to determine what classification we fell into.
So we would have to write down what percentage of time we spent doing different tasks and there were questions about do you review other people's data or do you have anybody that directly reports to you, that kind of information.
So it was a long questionnaire that we filled out.
Q Who was the other individual in your office who had a similar situation where she was

Page 22

originally determined to be a Toxicologist II, but them was eventually, you know, appealed the decision and became a Toxicologist III?
A Her name is Carrie Mazzola.
Q Can you spell her last name for us?
A M-A-Z-Z-O-L-A.
Q And then you have been a Forensic Toxicologist III since that time in 2015?
A Yes.
Q Now, you told me when you are reviewing your colleagues' work, it is not them reporting to you. Do you actually have anyone who does report to you from a management perspective?
A No.
Q You mentioned that you review work on assays where you are quote/unquote signed off. Can you explain to us what that means?
A You have to go through our entire training procedure. So there's a bunch of steps to it. I mean you read the SOP, which is our standard operating procedure. And that tells you exactly how to run the extractions, how you report it, gives you all the information you need to be able to extract and process that assay.
Then there are different steps where

Page 23

he would watch somebody who is signed off on that assay perform the assay and they would teach you how you write up that assay.
Then there are further steps where you would do an extraction with just calibrators and QCs to see if you can perform the extraction correctly and write up those calibrators and QCs.
Q What are QCs?
A Quality control samples.
Q Okay.
A And then beyond that you are given competency cases, which are cases that have already been run by somebody who was signed off on the assay. And you would run a full set with those competency cases and if you pass that portion of it, then you take a quiz and then you are signed off by, well, the QA, so our quality assurance officer. He will provide you with a memo stating that you are approved to run this assay.
Um, so that's how you would get signed off on an assay. Did I answer the question?
Q You did, thank you. Is it necessary to be signed off on an assay in order to run samples?
A Yes.
Q And then someone else who has also signed

Page 24

off on that assay then reviews your work?
A Yes. So we will extract the samples, write up the entire batch of data, plus all the samples that you ran with it, and then someone who is signed off on that assay will review what I have done to agree or disagree and, yeah, check what I've said that I should report on each case.
Q Both individuals who are involved in that process have to be signed off on the assay?
A Yes.
Q And that's true for all cases at the CCMEO?
A In toxicology. I don't know what other departments do, but yes.
(Deposition Exhibit Number 1 marked for identification.)
Q (Ms. Ranjan) I'm handing you what's been marked as Exhibit 1. This appears to be a copy of your CV; is that correct?
A Yes.
Q If you could just flip through it. Let me know if you had a chance to take a look. My next question is going to be if this is up to date?
A No, this is not up to date.
Q Okay. So what is missing?

Page 25

A Um, there are a number of continuing education additions that should be there and I believe publications also.
I have the most recent, do you need specifics on what's missing?
Q Just generally?
A Okay. We also for our ELISA panel, so on the front page it is a 15 drug panel now, not a 13.
Q Which two drugs were added?
A Zolpidem and Buprenorphine.
Q Anything else?
A After this one have been made, I was signing out, so I was doing the final review and signing out toxicology reports for cases that were completed.
I also was doing administrative review on cases, which I do still do to this day.
Q All right. You mentioned final review, can you tell me what that means?
A Yeah. So once all of the assays are complete for whatever has been ordered by the doctors or police department, once all the testing is complete, then whoever is going to sign the final report will look at the case file and will review all the data that has been put into the case file

Page 26

for that case.
You make sure that testing wise we have completed everything we said that we have. You make sure that the results are correct. You make sure that we have screens and confirmations for everything that we are saying is there.
You look at case histories and make sure that that makes sense with what we have found. To the best of your ability, it doesn't always make sense with the case histories, but then you generate a final report and you check the final report to make sure that everything on the final report is how we want it to be reported. And then all of that information will go to another reviewer, and that's the administrative reviewer. They will then double check, mostly the report to make sure that the report shows everything that we want it to show.
Q Who are the administrative reviewers in your office?
A Um, I am an administrative reviewer, our supervisor will do administrative reviews.
Q That's Eric?
A Eric Lavins.
Q Lavins.
A Um, the other two Forensic Scientist III,

Page 27

so that is Carrie Mazzola and Szabolc Sofalvi.
Q Can you spell the name for us?
MR. GALLUCCI: You didn't know this was going to be a spelling test.
A If I can write it, I can tell you. So S-Z-A-B-O-L-C, and Sofalvi, S-O-F-A-L-V-I.
Q (Ms. Ranjan) Thank you. Anyone else?
A We have three Forensic Scientist IIs who are able to perform administrative reviews and that would be John Kucmanic. Do you need a spelling?
Q Sure, why not.
A I believe, K-U-C-M-A-N-I-C and Rindi Rico. Her first name is R-I-N-D-I.
Cassandra Clyde, C-L-Y-D-E. And then we have one Forensic Scientist I who performs administrative reviews, his name is Ian Brooker.
Q B-R-U-C-K-E-R?
A B-R-O-O-K-E-R.
Q One other question about Exhibit 1. If you could turn to the last few pages. There's a list of publications and presentations?
A Yes.
Q You mentioned reviewing some papers in preparation for your deposition today. I wonder if you see all of those listed here and if so, if you

Page 28

could identify for us which ones they were?
A Okay. So the Cuyahoga County heroin epidemic that top one, that is something that I helped Dr. Gilson with. That one appears to be, he did a platform presentation at the National Association of Medical Examiners Meeting I did not review his PowerPoint slides, or however he presented that, but there's a publication with the same name that goes along with that exact same data and I did review that.
Q Okay.
A Um, the In Vitro Formation of Acetylmorphine from morphine and aspirin on in postmortem gastric. That is a publication that I was the first author on and I did review that.
Um, Lingering Opiate Deaths. Concentration of opiates in medulla and femoral blood. That's another publication that I was first author on and I did review that.
In Vitro Formation of Acetylmorphine morphine and aspirin, and gastric contents in water. That is a poster presentation that I presented in Washington, D.C. I did review that poster.
Q Is that basically the same information that was presented in the paper that you just

Page 29

mentioned?
A Yes.
Q Okay.
A An Explanation of Lingering Opiate Deaths. Relative concentration of opiates in medulla and femoral blood following lethal intoxication. That's another poster presentation that I presented in Boston and I reviewed that.
Outbreak of Heroin Related Deaths in a Major Midwest Metropolitan City. The Cleveland experience over a six year period.
That was another poster presentation that was presented in Boston. I actually was not the one who stood there and presented it because I was at the other poster about the lingering opiate deaths. John Wyman, who was our chief toxicologist, he stood by that poster for me, but I was the person who put together the poster. So I did review that.
Um, the Alarming Incidence of Heroin Deaths in Cuyahoga County. It was a PowerPoint presentation that I presented to both, a meeting where there were police chiefs from Cuyahoga County and also at the second annual OFTA meeting, which is the Ohio Forensic Toxicologist Association.
So I don't know if that PowerPoint, I

Page 30

reviewed a PowerPoint, it was one of those. I may have given the exact same PowerPoint for both of those.
Q Okay.
A And so I do notice that the dihydrocodeine poster is not included on this CV. Also the one that I was talking about that was, um, discussing explanations, um, for puzzling heroin overdoses, but those are not the exact titles.
Q That's fine. I can sometimes barely remember what I did yesterday more or less, you know, the title of papers I write.
A Me too.
Q You can set that aside for now.
Okay. Miss Kaspar, we talked a lot about your education and your training and experience. I want to ask you a series of questions now just to understand some of the limitations on that education and experience.
You're not a medical doctor, are you?
A No, I'm not.
Q And you're not a pathologist?
A I am not.
Q I know you minored in psychology in college, but you've never practiced psychology?

Page 31

A No.
Q You have never been a counselor?
A No.
Q You are not a mental health professional?
A No.
Q You're not an expert in public health policy?
A No.
Q You're not an expert in pain management?
A No.
Q Or the treatment of pain?
A No.
Q Do you have any training in epidemiology?
A No.
Q Do you have any training in pharmacology?
A I took an online course about pharmacology. It was a three day course.
Q When was that?
A That was, I think, the summer of, oh gosh, I don't know. It was after 2015. So maybe 2016. I mean, I can get you the date if I look at my newest CV.
Q That's okay, I'm just trying to get a general idea when it was. So it was sort of like a continuing education type program?

Page 32

A Yes.
Q You're not a pharmacist?
A I'm not.
Q You are not an expert on addiction?
A No.
Q You're not an expert on the causes or treatments for the purpose addiction?
A No.
Q You're not an economist?
A No.
Q You have no expertise in marketing or advertising?
A No.
Q We have talked about several of the articles that you published that rely on your expertise as a toxicologist. You don't have any articles on pain treatment, do you?
A No.
Q Or on addiction?
A No.
Q Have you published any papers on opioids that we have not already discussed?
A I don't think so. I was like not first author on a poster I know of that was presented in Dallas and that was on Fentanyls, but first author

Page 33

presentations and publications, no.
Q What was the topic of the Fentanyl poster?
A It was a review looking back, I think, maybe five years, um, on the Fentanyl cases that our office has seen. And she also wrote up a little bit about the DUID cases that we have had involving Fentanyl.
Q DUI is driving under the influence?
A Yes.
Q Who was the first author on that paper?
A Carrie Mazzola.
Q Do you remember approximately the year or the date of the publication?
A She presented that in 2016. Um, so yeah, 2016 I'm guessing is when it was created.
Q So it looked back at the Fentanyl cases that you had from approximately 2011 to 2016?
A I don't remember what the years are, but it is probably not, maybe up until 2015 we wouldn't have had the 2016 complete data at that point.
Q Okay. Have you ever contributed to any CDC reports?
A No.
Q Any surgeon general reports?
A No.

Page 34

Q Have you ever served as an expert witness?
A Um, I have testified three times in court.
Q Were all of those in connection with cases that came through the medical examiner's office?
A Yes.
Q Do you recall the nature of those cases?
A Um, the first case was a felony DUI and I believe I testified at the suppression hearing on that case. And the other two were DUIs from local municipal courts.
Q Have you ever given testimony, aside from the three cases that you just mentioned?
A No.
Q Even in your, you know, your personal capacity as just a fact witness?
A No.
Q Have you ever been involved in a lawsuit?
A No.
Q We have talked briefly earlier about the process for getting signed off to perform testing. Could you tell us which particular, they're assays that you get signed off on; is that correct?
A Yes.
Q What assays are you signed off on?
A I am signed off on the volatiles, I am

Page 35

signed off on the ELISA screen, the acetaminophen and salicylate color test.
The opiate confirmation. The benzodiazepine confirmations in blood and urine. The AMEIN confirmation, the Fentanyl confirmation, the cannabinoid confirmations in both blood and urine. The cocaine confirmations. I think that is everything.
Q Okay. You described for us earlier that you have a supervisor named Eric Lavins, I believe?
A Yes.
Q And that your, you directly report to the chief toxicologist; is that correct?
A Well, we report to Eric as a supervisor, but we also are able to go to the chief toxicologist, he's the head of the department.
So more like personnel issues you go to Eric and then toxicology issues you could go to either Eric or Dr. Apolloino.
Q So generally speaking, how do Eric's duties differ from yours?
A Eric does, well, Eric has been signing off on final case reports and I'm typically not doing that any more.
Um, Eric will talk to a lot of the

Page 36

pathologists or the police departments or lawyers who may be calling asking about toxicology results. That's probably one of the main differences that he deals with.
Q When did you stop signing off on final case reports?
A Um, it is not that, like I'm still able to, but we have a chief toxicologist now who is able to sign off of cases. So probably maybe April of 2018 I probably significantly decreased the amount of cases that I was having to sign out.
Q So there was a time prior to April 2015 when you had no chief toxicologist; is that right?
A Right.
Q Approximately how long was that period?
A Um, I think that, so Dr. Schueler was the chief toxicologist prior to Dr. Apollonio Dr. Schueler left our office, I believe, July of 2017.
Um, and then Dr. Apollonio began working in our office in February of 2018.
Q Again, I'm a little bit confused about the timing, so I want to clarify.
So it was approximately July 2017 until February 2018 when there was no chief

Page 37

toxicologist, right?
A Yes.
Q And then prior to July of 2017, how long was Dr. Schueler the chief toxicologist?
A Um, he began working at our office in, I think, the summer of 2014.
Q Do you know why he left?
A He left to go teach down at Ohio Northern University.
Q Who was the chief toxicologist prior to Dr. Schueler?
A Dr. Wyman.
Q When did he become the chief toxicologist?
A I'm not sure because I was in Maryland when he started. Um, I think, though, that it was 2010. I think he came earlier in 2010.
Q Are you in charge of any particular units or segments of the toxicology office?
A No.
Q I have seen in people's signature line it says, regional toxicology office, something of that nature. Can you explain to me what that means?
A Yeah, so we are the Cuyahoga County Medical Examiner's Office, but we are also the Cuyahoga County Regional Forensic Science

Page 38

Laboratory. And that is in regards to the police work that we do.
Q So you do work for the Cuyahoga County Medical Examiner's Office, correct?
A Yes.
Q And you do work for the Cuyahoga County Police Office?
A Cuyahoga County Regional Forensic Science Laboratory.
Q But you just mentioned police cases, which police unit or office or department are you serving?
A Um, so I believe all of the police departments in Cuyahoga County. So all of the individual cities they will send their DUI or drug facilitated sexual assault samples to our office.
There are some municipalities outside of Cuyahoga County that will also send them to us, but for the most part it is the cities in Cuyahoga County and then we will get stuff from the Cuyahoga County Sheriff's Office.
Q Okay. Do you handle work for any other entities?
A Um, with the medical examiner's office, we will get cases from other counties.
Q So other counties medical examiner's

Page 39

office's samples?
A Yes.
Q Anything else?
A No. We have the ability to accept cases from other places, but I can't, I think at one point Stark County submitted some samples to us that they wanted us to look for maybe carfentanil or something. So it was something that they were not able to detect down there and they sent samples to us.
So occasionally something like that will come along, but that's not typically somewhere where we would receive cases from.
Q Okay. So aside from those one off kind of cases, which jurisdictions outside of Cuyahoga County do you typically receive samples from?
A Um, occasionally we will get them from Lake County, we get them from Geauga County, Ashtabula County, Mahoning County, um, I've seen Lorraine County, but that's not frequent. I am sure there are ones I'm missing, but.
Q Do you have any visibility into the offices budget?
A No, I don't.
Q Do you have any idea if you charge those

Page 40

other counties to do testing for them?
A I believe that we do.
Q Do you have any idea how much?
A No, I don't.
Q So you wouldn't be able to tell me for instance how the medical examiner's office is funded?
A No. I know the county provides money to our office from taxpayers money I'm assuming, but that's all I know.
Q If we wanted details about the annual budget or how it is spent, you wouldn't be the most knowledgeable person to ask about that?
A No.
Q Okay. How often do you use reference labs?
A We use them frequently. Um, just as needed. So there is a suspected drug that we know that we don't have a test for or that we can only qualitatively detect, we will send them out to a reference lab.
Q What types of samples would that typically entail?
A Um, typically, a femoral blood or some sort of blood specimen we would send.

Page 41

Q Is there any type of particular substance that usually necessitates the use of a reference lab? Like how do you determine that you want to send it out to a reference lab?
A So sometimes we'll know when we receive the case from the pathologist that they're looking for specific drugs based on maybe the medications that were found on scene.
So if there's a specific drug that the pathologist is interested in that we know we don't see in our assays or cannot quantitate, then we will send that out.
We may also just from our in-house testing come across any analyte that we are not able to report. And if the pathologist feels like they want us to follow-up on it, then we will send that sample out.
Q Can you give me some examples of when that happens?
A Um, there are, for instance, some antidepressants that we don't see. So like duloxetine is something that we don't currently detect. They may have seen it in our blood base screen, but we cannot quantitate it in our lab.
So if there was a case that had that

Page 42

in the meds or that we found through our base screen, then we would send that to typically NMS, which is the National Medical, maybe sciences, they are in Pennsylvania.

Q That's okay, you don't have to guess.

Has the use of reference labs changed over time at all since you have been back since 2010?

A I early on in my career did not know of what we were sending to reference labs. So I have no idea whether or not we have been using them more or less.

Q Okay. When did that change happen, when did you become aware of the use of reference labs, was that around the time you became a Toxicologist III?

A Yeah, when Dr. Schueler was there, well, also I was pregnant. So they were trying to keep me out of the lab. They were giving me more duties that were administrative. So I would check the send out, um, forms that we were sending out. So, yeah, it became more clear to me how frequently we were using them.

Q Approximately when was that?

A Um, that was in 2014. Probably the fall

Page 43

of 2014.

Q It is funny how you once you have kids, they become an easy marker for all the times in your life?

A Yeah.

(Deposition Exhibit Number 2 marked for identification.)

Q (Ms. Ranjan) I'm handing you what has been marked as Exhibit 2. If you would take a look at the first page of the document. It appears to be an email from Eric Lavins to you?

A Yes.

Q Dated December 14th, 2010?

A Yes.

Q And there's an attachment that appears to be a PowerPoint presentation?

A Okay.

Q If you could just take a look at the presentation. I don't have questions about every slide, but my first question is going to be, does this look familiar to you?

A So it is a presentation that Eric made. I mean, I don't specifically remember looking at this, but if he sent it to me, I probably did.

Q So I believe that the presentation

Page 44

provides just some general background on the Cuyahoga County, what was the coroner's office at that point in time in the toxicology department. I want to walk through a little bit of it with you.

If you could turn towards the front, there's a slide called types of cases?

A Yes.

Q And we talked briefly about some of the type of cases that you handle, but they're listed here as accidental deaths, homicide, suicide, occupational deaths, sudden deaths, special circumstance deaths, therapeutic deaths, any death where there is doubt, question or suspicion, police cases, out of county cases, probation cases, proficiency cases, does this generally summarize the type of cases that come through the toxicology office?

A Yes.

Q In general, the Cuyahoga County Medical Examiner's Office receives cases where there is suspicion about the nature of the death; is that right?

A Typically. For instance, like an occupational death, there may not be suspicion, but just because it occurred in the work place, it is in

Page 45

our jurisdiction.

Q So it could be a suspicious death or maybe an accidental death?

A Yes.

Q Are there any other general types of cases that you might handle that come to mind that aren't listed here?

A No, I think this is pretty inclusive.

Q If you could turn to the next page. It is titled what we do not do. And it says, we do not act as generalists, performing all different types of science. Like you might see on Bones, CSI, Law & Order.

Did I read that correctly?

A Yes.

Q And also says, you don't arrest criminals, right?

A Right.

Q You don't provide instantaneous results with a push of the button, right?

A Yes.

Q And you don't always get the evidence or the results you need, right?

A Yes.

Q Can you think of an instance where that

Page 46

happened?
A Where we did not get the evidence or result that we need?
Q Yeah.
A Um, I would say in cases where the decedent is very decomposed, we may not be able to get toxicology results that are meaningful.
Q Okay. If you could flip further on the presentation to the slide entitled toxicology, why do it.
A Okay.
Q The first bullet point discusses postmortem forensic toxicology. I will just read it. It says, postmortem forensic toxicology, which determines the absence or presence of drugs and their metabolites, chemicals such as ethanol and other volatile substances, carbon monoxide and other gases, metals, and other toxic chemicals in human fluids and tissues. And evaluates their role as a determinant or contributory factor in the cause and manner of death.
Did I read that properly?
A Yes.
Q Generally speaking, does that encompass the bulk of the work that you do?

Page 47

A Yes.
Q And on the third bullet point, forensic urine drug testing, which determines the absence or presence of drugs and their metabolites in urine to demonstrate prior use or abuse.
Did I read that properly?
A Yes.
Q And that's also something that is within your scope of work at the CCMEO?
A We do perform drug testing on urine, but I feel that the human performance forensic toxicology fits better with what we do. So we do postmortem and we do human performance, which would be the DUI cases that we're testing.
Forensic urine drug testing may be more of a work place testing, but we do perform toxicology on urine though.
Q Okay. If you could to the slide labeled 2006 toxicology statistics workload. The slide discusses there were 3,563 toxicology coroner cases tested and 22,658 tests performed on coroner's specimens. I just wanted to understand these figures. I realize 2006 was, you were there in 2006?
A Yes.

Page 48

Q Okay. But what this discusses is that there were 3,000, approximately 3,500 cases, but on those 3,500 cases, you performed 22,600 roughly tests; is that right?
A Yes, that's how I am reading that.
Q Okay. And in that same year you received 702 cases from police departments and other jurisdictions and that sort of thing?
A Yes.
Q Do you have any idea about today what the volume of cases that you handle looks like?
A Um, I don't know exact numbers. I want to say for the IN cases we call them, which are the Cuyahoga County postmortem cases, I want to say we are around 2,500 typically for the year.
The police cases roughly 500 a year. The outside, the cases from county's that are not Cuyahoga County, I guess roughly 400 some. I do not know how many tests we have performed on all of those though.
Q Okay. And I recognize that those are approximate figures?
A Yeah.
Q What are you basing that information on?
A I'm just trying to remember because we

Page 49

give each case an internal laboratory number and they go numerically. So I was just trying to remember how many we had from last year.
Q Okay. If you could turn to the slide labeled toxicology laboratory analytical scheme. Right there, yeah.
So I believe that this slide is meant to walk us through how a case comes into the toxicology, I will call it division, office, what do you call it?
A Laboratory.
Q Okay. So how a case comes into the toxicology laboratory and then how it sort of makes it way out of the toxicology laboratory.
Is that your understanding of this slide?
A Yes.
Q Okay. So it starts out where the specimen is received. Tell me a little bit about that. How do you first become involved in a case that is a medical examiner case?
A Um, do you mean me specifically or do you just want me to walk through these steps of how a case comes into our lab.
Q Sure. You could just explain it generally

Page 50

for me first.
A Okay. So the specimen is received and we call that accessioning.
So we have a laboratory aide who does most of the accessioning right now. So the specimens, if an autopsy was done in our office, these specimens will come down on a dumbwaiter from the autopsy suite.
If the case, so some cases that come into our office they decide they do not need to do autopsy on, but they will still draw biological specimens. Those cases we call nonpost cases and we receive those from a locked refrigerator down in the receiving department.
Um, for police cases, the officers may drop it off during office hours and actually come up to the laboratory and hand us the specimens.
If it is after hours, the receiving staff will receive the samples and then put them into our locked refrigerator.
So once we have received the samples, we accession them into the computer. So everything is given an individual case number each case has a separate number.
And our computer system is called

Page 51

Pathways and each specimen that we receive will be logged into Pathways, and then the testing that's been requested by either the pathologist or the police department will be added to the correct specimens at that point at accessioning.
Q If I could interrupt for a second. The accessioning process that you just described, so that's where there's a pathologist or someone who performs pathology type of function extracting samples from the body, is that accurate?
A So either up at autopsy they have collected samples and then sent them down to our laboratory or the nonposted samples where they don't do the autopsy, a member of the receiving staff will do a blood draw.
Q Okay.
A And also they will, um, pull any vitreous humor from the eyes that they are able to.
Q Okay. You can continue.
A So the chain of custody check. I'm assuming that's just speaking of all of the samples that we receive into our laboratory come along with a chain of custody.
So if it is coming from the medical examiner side, we have a chain of custody showing

Page 52

what they have sent down to us. And then we check off what we have received and the volumes of what we have received. On the back side of that sheet is where the pathologist will note whatever testing they have requested.
They will also, if they have any idea of something that they're suspecting that could be the cause of death, they can write that on a particular line and they can also mark, um, if they have any feeling as to what the manner of death would be at that point.
So it's all, that they're filling out, um, either after the autopsy is complete. Sorry, or if it is a nonpost, we still receive the chain of custody stating how many samples we have received, but since no internal examination was done, they are basing their information off of case history. So maybe medical records they have received or information from family.
Um, and the back of the nonpost case or checklist also will state what kind of testing they would like.
The police cases have a separate chain of custody, but it has the same information. It is saying who dropped off the sample, how many

Page 53

samples they dropped off to our office and what time of day they did that, who they gave those samples to in our office.
Um, they request on that chain of custody what testing they want and then, um, whoever logs the case into the computer, into our Pathway system, that all goes on the chain of custody also.
Q And so for the chain of custody, I'm sorry, strike that, let me start over.
So each case receives a case number regardless of whether it is a medical examiner case or a police case; is that right?
A Yes.
Q And all of those cases go into the Pathway system that you mentioned earlier, regardless of which type of case it is?
A Yes.
Q Okay, great. You can continue, thanks?
A So then it says screening test. Typically you are going to perform the screening test in order to determine what kind of confirmation testing you need.
Um --
Q Does the pathologist make the decision which screening test to run or you, the

Page 54

toxicologist?
A They initially do. So they will choose what kind of testing they want. We have an option that is basic toxicology where they're only going to get an ELISA screen. Based on the result of that screen, then further confirmation testing will be performed. So they don't have to specify any further than that. It is just goes with what was positive from the screen.
Q So just, I'm sorry, to make sure that the answer is clear. So it is the pathologist who determines which screening test to run?
A Yes. So there is one called comprehensive that will order more testing from us. So, yes, upfront they determine what testing they feel is necessary for them to have a better idea of what caused this person's death.
Q They, being the pathologist?
A Yes. If along the way we find something that we feel like needs to be pursued but wasn't necessarily part of their original testing, typically Eric or Dr. Apollonio will then speak with the pathologist and determine if they want us to further pursue whatever it is we detected.
Q Okay. Great. You can continue?

Page 55

A Okay. So the screening test, for instance, would be like that 15 panel ELISA. So from that, the ELISA is telling us presumptive positive or negatives for 15 different plates. Some of them are specific to a certain drug. So we have a PCP specific plate.
Other ones are specific to a drug class. So we have an opiate plate that will give us positive results for a number of opiate drugs.
We have a cocaine plate, which is again more specific to cocaine.
We have a benzodiazepine plate, which is going to tell us that there's a benzo there, but this we don't know what benzo is there.
So based off of the screening results, further confirmations are, we call it they are bumped up. So the testing is added.
Um, and that would be, um, to either confirm the presence of the specific drug that the plate said was there or to confirm that presumptive positive, but also determine which actual opiate is present and how much of that is present.
Q So the screening test is an initial result that then needs to be verified through further testing, is that accurate?

Page 56

A Yes.
Q And the ELISA testing you have been mentioning to me is a screening test?
A Yes.
Q And the screening test or the ELISA test does not tell you the quantity of the drug in the sample, correct?
A No, it does not.
Q Okay. Continue.
A So to the left side of the slide under screen test it is saying that if the screen came back negative, then we don't have any further testing to perform and then the report is issued.
And then eventually the samples are put over into our freezer for the long term storage.
Q Do you know how long you keep those?
A We have been keeping them a year.
Q Has that policy changed at all recently?
A I don't believe so.
Q Is there any particular type of case that you might keep longer than one year?
A There are cases where the pathologist can request for the samples to be kept indefinitely. So we have those called permanent saves.
We may have been keeping the out of

Page 57

county cases longer than a year, but I do not remember what that length of time was.
Q Okay. So then going back up, assuming that the screening test came back positive instead of negative. After that, that's when you would run of those confirming tests that you mentioned?
A Yes. And then once all the confirmation testing is complete, then again the report would be issued and then the specimens would be placed in the storage.
Q And the nature of the confirming test that you run would depend on the screening result that you received in the first step?
A Yes.
Q In your toxicology office, is it the same individual who receives that paperwork and those samples who then issues the report at the back end of the process?
A No. The person who receives, you are talking about when the sample comes into the laboratory?
Q Correct.
A That is typically our laboratory assistant who will receive all of those cases and put them into our Pathway system.

Page 58

Typically the, um, chief toxicologist who will be the one who generates the final report.
Q Okay. And then in between that process, in between the point when the laboratory assistant receives the sample and chief toxicologist issues the report, who else handles the specimens in between that time?
A Any of the analysts. We recently switched how -- so used to be that everybody who was just doing the same confirmation tests always. That was Dr. Wyman's idea that he found that people like to get extremely proficient on certain assays and so you were always doing that assay. So we were not rotating.
Now, we are trying to get it back to how it was when Dr. Jenkins was there, which is everybody rotates through the different assays that way everybody is well rounded and knows how to perform all the assays in the laboratory.
So anybody who is on that particular assay that a positive is generated from the screen, they will then perform testing on that sample.
Q When did that policy of rotating again through various type of cases, when was that change made?

Page 59

A Um, we had just, well, as of January 2nd, we have started a new system that we are calling benches, which is very similar to what Dr. Jenkins did.
So the Forensic Scientist IIs and Is are all on a bench, they're all assigned a bench, which has specific testing that they are assigned to do. The idea is that every two months they will rotate through the benches so that they can move over to different assays.
The Forensic Scientist III, so myself, Carrie and Szabolc, we are all assigned one of the bigger assays in the laboratory and we typically won't be rotating. So I'm assigned the opiate confirmation. Carrie's assigned Fentanyl confirmation and Szabolc is assigned benzo confirmation, the benzodiazepine confirmation.
And we will be doing, the IIIs will be doing a lot of the data review on all of those different assays. So that the Forensic Scientist IIs and Is will not be doing much data review.
Prior to that, so, I don't know, maybe sometime this summer. Dr. Apollonio had set up a system where he just had, um, each week of the month certain assays had to be done and people were

Page 60

just signing up for them.
So there was no set schedule for anything, you just signed up for whatever fit into your week.
Q When was Dr. Jenkins the chief toxicologist you said?
A Yes.
Q When was he the chief toxicologist?
A I don't know when she started, but when I began in 2004, she was the chief toxicologist then and she left in 2007.
Q I apologize there, she?
MS. RANJAN: Do you want to take a quick break?
THE VIDEOGRAPHER: Off the record 10:20.
(Recess)
THE VIDEOGRAPHER: We're on the record 10:36.
Q (Ms. Ranjan) Okay. Miss Kaspar, going back to the document we were looking at before we took a break there. If you do turn to the slide labeled, The Approach To Forensic Drug Testing. It looks like this.
A Okay.
Q So this is describing the process that we

Page 61

discussed before, right, where there is first a screening test that determines the presence of a substance and then the confirmation test that confirms the presence of that substance and quantifies the substance; is that right?
A Yes.
Q And then turn to the next page. So screening test it says, screening test is an initial test. And that's because there is confirmation that's needed afterwards, right?
A Yes.
Q What does it mean when it says no false negatives?
A I did not make this, so I'm not positive what he means by no false negatives. My best guess would be that your screening test you want to have a test that will result in the least amount of false negatives that you can possibly have.
Q It is fair to say that you do at times have false negatives on screening tests; is that right?
A Yes.
Q And in particular, for Fentanyl and some of the Fentanyl analogues, there have been instances where there have been false negatives in the past;

Page 62

is that right?
A Yes.
Q And for carfentanil the answer is the same that there has been false negatives in the past?
A Um, yes, carfentanil specifically. The first question that you asked Fentanyl and Fentanyl analogues?
Q Yes.
A Yeah, I was considering carfentanil a Fentanyl analogue.
Q Perfect. Thank you for that explanation.
I'm going to jump several slides. There's one where there is some pictures of some individuals doing some testing it looks like. That one right there. Is that your laboratory at CCMEO? When I say CCMEO, do you understand that I mean the Cuyahoga County Medical Examiner's Office?
A Yes. The right-hand upper picture appears to be in our laboratory. I do not know where that left-hand lower picture is.
Q Okay. Are these the benches that you described earlier?
A Um, so the benches I was talking about are more of a hypothetical bench, that's what we call a grouping of tests. But yes, he is specifically at a

Page 63

bench in the laboratory.
Q Okay. So bench is your word for describing the set of tests that are done by a particular person or group of people?
A Yes.
Q If you could flip two more slides that describes the confirmation analysis. That's the second step in the testing procedure that we have been discussing; is that right?
A Yes.
Q So that utilizes the second analytical procedure with increased specificity, I will get it out in a second, an increased sensitivity; is that right?
A Yes.
Q And this slide says, no false positive results. Do you believe that to be true?
A I mean that specific statement is most likely not true. I believe that he made that, again, stating you want your confirmation analysis to have as few false positives as you can.
Q But there are instances where you might get a false positive; is that right?
A Um --
MR. GALLUCCI: Object to form.

Page 64

A I don't know of any in our laboratory, but I am sure it could happen.
Q (Ms. Ranjan) Okay. The next slide says, blood equals current, urine equals historical.
You told me earlier that you do run testing on both blood and urine samples; is that right?
A Yes.
Q And how is a determination made whether blood or urine should be tested in any particular case?
A Um, well, in some cases, specifically the police cases, we might only get a blood. So then, obviously, we are only performing a blood.
We have certain assays that go on specific samples. Um, so for instance, one of our screening techniques is the urine base assay. So that's always performed on urine. If we have a urine on the case and if they ordered the comprehensive testing, they will get a urine base.
Um --
Q They, being the pathologist?
A Yeah, whoever ordered the testing.
Q Okay. I think unless I specifically mention otherwise, we were discussing the toxicology

Page 65

testing from here out. Let's assume we are talking about the medical examiner cases?
A Okay.
Q So in those instances it would be the pathologist who is ordering that testing?
A Yes.
Q Okay. Great.
A Yes. So like I was saying, based on what they order, the testing goes on specific specimen and it depends on what specimen we receive for that case.
So the ELISA is only validated to run on blood specimens or liver or vitreous, not on urine. So you would not put an ELISA on a urine.
Q Do toxicologists collaborate with the pathologist to determine which samples to test for each case?
A We will if there is extremely limited sample volume.
Then sometimes we will discuss with them what the plan is for the testing. So the ELISA screen only takes 50 microliters of blood, which is an extremely small amount of blood. We can get a lot of presumptive information from a very small amount of blood.

Page 66

So then we could go to them and tell them the results from that ELISA and ask them to prioritize what they would like us to prioritize for the confirmations.
Q Okay. But in the general case it is the pathologist who is determining which samples to draw and which screening tests to run?
A Yes. They decide at autopsy what to draw, but on most of the cases it is the same sample. So they must have protocol on what they are to draw up.
Q Do you know if they have a protocol?
A I do not know that.
Q Okay. Are you familiar with the concept of redistribution?
A Yes.
Q In blood?
A Yes.
Q Can you explain for the benefit of the jury what redistribution is?
A Um, I am not the most familiar person with it, so if you want very specific, then you would want Dr. Apollonio. Redistribution basically is that when a person passes away, the drug specimens can redistribute from the blood to other tissues of the body.

Page 67

Q And so sometimes it is important that you draw samples from the correct area of the body in order to get the best results; is that right?
A Yes.
Q Do you know what CCMEO does to insure that they are test thing the best samples that they can to address the issue of redistribution?
A I do not know. I think that would be something in the pathology department that they have some sort of maybe standard operating procedure on how to collect the best samples.
Q It would be best for us to talk to one of the pathologists about that issue?
A Yes.
Q When you received, when the forensic assistant receives the samples and then they're passed along to the toxicologists in your laboratory, assigned from you mentioned one form you received with that, which I think was some sort of an order form; is that right?
A Yeah, it is our chain of custody and the testing requests form.
Q Okay. And then that tells you which tests to run on those samples; is that right?
A Um, not specifically. It just, they will

Page 68

select a general, either a basic toxicology or comprehensive toxicology, and then the laboratory assistant will add the specific tests that go along with whatever was checked off on the back.
Q Okay. Do you receive any other documentation along with the samples?
A Not from autopsy. But we have a program calmed Vertiq.
Q Is that V-E-R-T-I-Q?
A Yes. That is a software that every department in the building utilizes. And we will use that because we can get the case history from that. So when the investigator goes on scene or whatever information they gathered, that will go into a location that we can see. So it is not something that you specifically are handed on each case, but we have access to that on each case.
Q Do you review the investigator's report for every case that you run toxicology testing on?
A Not every case. I will review them when I feel that I need to be able to make decisions about further testing.
Q When would that happen?
A Um, when I am writing up a set of, let's say specifically opiates, if I feel -- so if they

Page 69

give us a history that this person is a heroin user, and, um, I find codeine and morphine only in my femoral blood sample that, so seeing the codeine and morphine would give me a hint that possibly this person had been using heroin. I would look at their case history and I would see, okay, they are a known heroin user.
And then at that point I would bump a further specimen to test, typically the vitreous humor. So that I can attempt to detect the 6-acetylmorphine, which is the metabolite that definitively states that heroin was used.
Q So it is fair to say then that the scene investigation provides critical context for toxicology testing?
A Yes.
Q For example, the presence of drug paraphernalia might tell you you need to run further tests?
A Yes.
Q What you just described?
A Yes.
Q Is it also true that collecting illicit substances from the death scene could inform your toxicology analysis?

Page 70

A Yes.
Q How so?
A Um, so we have the drug chemistry department in our building and, um, I don't know what percentage of the time, but a decent percentage of the time they will receive paraphernalia from the scene of these deaths or actual drug from the scene of the deaths. And we use that to compare with what we found.
If we see something on the drug chemistry report that is something that we are not able to detect in our laboratory and we feel that it would be important, an important addition to help with the cause of death, then that could be something we might send out for, or it will, you know, just act as a confirmation to the stuff that we found also. We say we found heroin, they found heroin, so good, we are matching up.
Q Is that a part of your standard operating procedure for medical examiner cases? Do you always check whatever is found at the scene with drug paraphernalia or drugs are found at the scene?
A Um, it is not part of the standard operating procedure, but I would say typically the analysts are looking at that and if not the

Page 71

analysts, then the person reviewing the data.
They're not always loaded into our Pathway, so they do have the ability to load the PDF file or whatever drug chemistry finds.
Sometimes we have either beaten them to it, so we have gotten our results before they have, or there might just be a lag in them being loaded.
If we were really concerned about it, we could call them and see if they have results on that case, but not all of our cases have drug chemistry submissions.
Q For the cases that do have drug chemistry submissions, though, we would always find those reports in Pathways?
A I think eventually, yes, they will make their way into Pathways.
Q Okay. So if I understood your testimony earlier correctly, it sounds like you work mostly on opioid cases now?
A That was one of the assays that I was doing. Starting January 2nd, yes, that will typically be the assay that I'm performing.
Q And you have substantial experience in running the open assays prior to, you know, that

Page 72

change on January 2nd?
A Yes. Other than when I was on maternity leave or pregnant with my two children, I have been performing the opiate assay since 2010.
Q So it is fair to say then that the presence of drugs or drug paraphernalia at a death scene can be, um, more important in some cases than it is than others, right?
MR. GALLUCCI: Objection to form, foundation.
Q (Ms. Ranjan) You described earlier that you -- there's some cases where you look for that drug paraphernalia at a scene, where you look for, you know, the results of the drug testing, drug chemistry that was found at a scene. Where you might specifically seek that out if the results are in Pathways. Can you describe that kind of a case to me, what would be, what kind of case would, what kind of case would you find yourself seeking out that drug chemistry if it is not loaded in Pathways?
A Um, I would say when we have very limited sample. We would want to see what they have detected so that we can focus our testing so that we can use our sample as best as we possibly can.
Q Are there any other instances?

Page 73

A Um, no, I think that would mostly be when we were doing that, I can't think of another instance where I feel like I need to actually call them and find out what it was.
Q Okay. And then on the other, just in the general instance where you are not specifically going and trying to seek out that information in Pathways, you would just use it as sort of a confirming check on the work you've done?
A Yes.
Q Aside from the presence of drug paraphernalia or drugs at the scene of a death, there is other information that is included in the investigative report, right?
A Yes.
Q For instance, it would include interviews with witnesses?
A Yes.
Q Or friends and family?
A Yes.
Q It is fair to say that those interviews provide crucial details that assist in the death investigation?
A Yes.
Q And that also assists you in the

Page 74

toxicology that you are performing?
A Yes.
Q For instance, if a person has a history of drug abuse, that might, that might inform what kind of toxicology testing you do?
A Um, not necessarily. That would be more the call of the pathologist and the chief toxicologist at the end. If we did not find anything, then they may say, well, this person had a history of drug abuse, we want further testing and then we would figure out what further testing to add.
Q Who in the department conducts the death scene investigations?
A We have an entire department called investigations. I'm not sure how many of them there are, there are quite a few. They work in shifts. They go to as many scenes as possible.
Q They're all medical, legal, death investigators?
A Yes.
Q Who runs that department?
A His name is Joe Stopak.
Q S-T-O-P-A-C, P-A-K?
A I think it's S-T-O-P-A-K.

Page 75

Q How long has he been with CCMEO?
A I do not know, but he has been there since I started in 2004.
Q How many investigators does the office employ?
A I do not know. It is more than ten.
Q Okay. How routinely do you work with the investigators?
A Not frequently at all.
Q How many times a year would you estimate that you have a meeting or conversation with the investigators?
A Maybe once a year.
Q Oh, wow, that infrequently.
A Yeah.
Q Otherwise you are just reviewing their reports from their scene investigations?
A Yes.
Q Aside from your work duties, do you interact with the investigators on a personal level?
A No, I don't.
Q Are they in the same building that you are in?
A They are.
Q Do you have any opinions about whether the

Page 76

investigators have the resources that they need to do their jobs properly?
A I have no idea.
Q Have you ever had an instance where you reviewed a death scene investigation report and it seemed incomplete or inaccurate?
A I'm sure that I have. Um, I guess the only example I can give is sometimes they will state on there that they did not go to the scene due to short staffing for that evening or day or whatever.
Q Do you have any information about how those cases are assigned?
A I do not.
Q When did that short staffing issue come to your attention?
A I have no idea. Probably over the past couple years, but I don't know an exact year.
Q Generally speaking though, you would say 2016 forward?
A Um, yeah, I really do not know.
Q Can you remember an instance of that short staffing coming up, short staffing for the investigators coming up prior to 2016?
A Um, no, but I also am not certain what cases they were going to the scenes of back then

Page 77

because that has changed over the years. For instance, when I first started, we had one investigator and he pretty much only went to the scene if it was a police involved death.
So over the years it has evolved quite a bit and they go to a lot more scenes now than they were previously.
So I don't know if that's why I wasn't seeing it before because they maybe did not need to go to these scenes prior, but I don't know what year that started either that they started going to all the overdose scenes and trying to go to every scene is what I believe they try to do.
Q So there was a change where at some point in time they were not going to the scene of every overdose death and then now they do go to the scene of every dose death?
A I believe they are trying to go to the scene of all of the cases.
Q Do you recall when that change occurred?
A I don't. I know when I came back from Baltimore, that there was a larger investigation department, but it was smaller then than it is now. So between 2010 and now, they can continue to grow and go to more scenes.

Page 78

Q Do you know why that change was made?
A I don't.
Q Okay. So when the toxicologist is perform toxicological testing, they have the order form or chain of custody form and they have death scene investigation available to them. Is there anything else that the toxicologists might be reviewing in performing their toxicological testing?
A No, I don't think so.
Q Do you know if there is any kind of standard operating procedure applicable to which toxicological testing is order?
A Do you mean for the pathologist?
Q Yes.
A I do not know that.
Q Do you agree that the results of a toxicology screening are dependent on the scope of tests? In other words, you won't find things that you don't screen for, right?
A Yes.
Q When you received the chain of custody form from the pathologist, does that form contain preliminary determination as to the cause or manner of death?
A Sometimes it does.

Page 79

Q Are most overdose deaths identified as suspicious overdose deaths on that form?
A I would say most are.
Q In other words, when I say suspicious overdose, that's what I mean is, does that form indicate that there is a suspicion that the case might be an overdose death?
A Yes, typically it will say that.
Q Are those cases where the form indicates that there is a suspicion of an overdose, are those cases handled any differently than any other case?
A They are. Since we determine that carfentanil was in our area. So if it looks like an illicit, so yeah, if it looks like there are syringes or something that would indicate some sort of IV drug abuse or drug packaging on scene, or the person has a history of heroin abuse, those cases we typically add the fentanyl confirmation to right off the bat because we know that we will miss a carfentanil through our screen.
Other than that, no, they're not treated differently.
Q Is there a separate screening for carfentanil versus Fentanyl?
A Um, there are ELISA kits made for

Page 80

carfentanil, but we do not have that kit in our laboratory, we don't run that test.
We also have another screening procedure called an OMIT and that's performed on urine. And that Fentanyl kit for the OMIT is able to pick up some carfentanil, but it would have to be a certain concentration of carfentanil to be able to see that.
Q Do you typically send your suspected carfentanil cases out to a different lab?
A No, we do not.
Q You run those in house?
A Yes.
Q When was the change made to routinely add on the Fentanyl screening into suspected overdose cases. Was that completed in the 2014 time frame?
A I was going to say maybe 2015.
Q Okay. Because that's when you started to see a larger number of Fentanyl cases in Cuyahoga County?
A So neighboring counties, it was either Summit or Stark had a bunch of overdoses in one weekend and they rushed their testing to try to find out what was going on and they came back with carfentanil. Right around that same time Franklin

Page 81

County had seen some carfentanil cases.
So at that point, we um, we knew that it was in the area and so then we started to add on the confirmation. We purchased carfentanil standard and at that point we might have been sending out because officially when carfentanil came about in the area, we did not have a validated procedure for it.
So we had, we put it into our procedure so we could detect it, but we were not able to report it from our laboratory.
And then after that we built a method and validated a method that we were able to report carfentanil from.
Q How long did that take?
A Um, there's been two different methods. Probably between 2015 and the second one was finished, I believe, in 2018.
The second one for the more recent one, that did take approximately a year to get up and going and fully validated.
The one prior to that, we already had the existing Fentanyl procedure on our LC/MS instrument. So we just had to validate a couple other analytes so that probably took a couple

Page 82

months, not a full year.
Q So for some period between 2015 and 2018 you were sending out Fentanyl analogue cases or suspected the Fentanyl analogue cases to an outside laboratory?
A Yes, definitely because in addition to carfentanil, there were other Fentanyl analogues that we could not report out of our lab.
Q Were those all suspected Fentanyl analogue cases you were sending or was it some subset?
A Um, I'm not 100 percent certain because I wasn't running the Fentanyl assay, but I know we were for sure sending out for Fentanyl analogues.
There was carfentanil at one point we were sending out for and then once we got that in our assay, we didn't need to send out for that any more.
Cyclopropylfentanyl, I believe was one we were sending out for a while, Methoxyacetylfentanyl. So we had in our Fentanyl assay the, we had those analytes in our standard. So then when we would see a peak at that retention time, we had a heads up that we possibly had one of those cases and that's what would flag to send out those cases.

Page 83

So every Fentanyl case did not get sent out, but just ones that flagged that we needed to send it out based on the testing we were performing.
Q Did you send those out to MMS?
A Yes.
Q Is there any other way in which a suspected overdose cases are handled differently in the toxicology department than what you have already described to me?
A Um, just again that those, we will, if there's a lack of sample volume on them, we will focus on prioritizing typically the Fentanyls are the most important at this point. So if there is not a lot of sample volume, we are going to ruin the Fentanyl confirmation.
And then the opiate confirmation and then our chief toxicologist has a full lists how he likes us to go about making that decision.
Other cases, um, we would end up doing the same, but if they don't involve a Fentanyl or an opiate, it makes the process a lot easier to determine how to proceed with testing.
Q Once you are done with your toxicology testing, what type of paperwork do you fill out?

Page 84

A So do you mean once all of the testing is complete on the case?
Q Yes. So once you have done your testing, you must be reporting your results to someone. I'm looking, I'm hoping to understand what that process looks like. What paperwork do you generate after you complete the testing?
A Okay. So I will perform the test and I will evaluate all the data and then it will be checked by another analyst. And what they're checking is I have written up what I believe should be reported on each case.
Q I'm sorry to interrupt, but by what you mean should be reported, what you mean is what the toxicology report should include or how it should read?
A Yes, what should be included on the toxicology report for that particular assay.
Q Okay.
A So I'm going to, um, either say that nothing was detected or the case is going to be positive and it was positive for this particular analyte, or whatever particular analytes, and the quantity of those analytes as long as I met all the criteria to be able to report quantitively. If I

Page 85

didn't, then I could say that that analyte is present, but just not how much of it.
So that information will be on my, they're called chromatograms, so that's the data that I generate. Reviewer will look at what I have written and determine whether or not they agree.
Um, if they don't, then we, sometimes it might just be a typo that I wrote the wrong analyte and they said no, it is the other one. If there is a discussion that needs to be had, we will discuss it together or we could ask the supervisor or the chief toxicologist.
Then at that point, when the reviewer gives the data back, I will enter those result that I have written on each chromatogram into our Pathways and that will close out the open pending, let's say opiate assay in this instance. So then that will no longer show up on my work list that that case needs to be run.
And then all of the other analysts will do that with all the other testing that needs to be completed and then when it is all completed, it will show up on a particular list in Pathways saying that there's no testing open on these cases. And at that point the chief toxicologist will take

Page 86

the case and review all of the data that's in the case file and then generate the final report.
Q And the final toxicology report essentially collates all the results of those assays that the toxicologists are reporting, right?
A Yes.
Q Does it include any other information?
A It includes demographic information, it will include the decedent's name, it will include who the pathologist was on the case. I believe it includes the dates that we received the body and the date that the report was completed.
The back of the report will tell you every drug that's in our scope of testing. Um, if it is from another county, that will be on the final report in the public comment. So there's a section at the top that says comment.
Also if there's any miscellaneous results or just explanations that need to be made, the chief toxicologist will write them in that comment on the report.
Q What would an example of comments that are necessary?
A Um, for instance, if we have a severely decomposed body and we performed testing on the

Page 87

liver, some of the assays may not be specifically validated for a liver. So then he would, the result would go on the report as see comment. He would write a comment up there stating that these were investigational findings only, or something to that extent.
Also if we have an analyte that we believe is probably present, but it doesn't meet our standards of what it needs to meet to be able to be reported, the result will go in see comment and he will add a comment saying something along the lines of, the hydrocodone in the femoral blood had a junk peak that collated with it and was unable to be reported.
Typically he will do that when you have hydrocodone in another matrix and then he will say see here. There will be hydrocodone in the urine.
Q So it is essentially meant to explain any limitations or unusual results that you see in the toxicological testing?
A Yes.
Q Toxicologist do not determine cause or manner of death, correct?
A No, we do not.

Page 88

Q Do the toxicology reports include testing that was done, but came back negative?
A Yes.
Q Do the toxicology reports include where the sample was drawn from that was testing?
A Um, typically yes. The way that we label the specimen as they are entered into the computer will frequently do that.
So a femoral blood will be specifically called femoral blood as opposed to just blood. Typically the heart blood is what we call B1 and that will print-out on the report as heart blood.
There are drop down options when you have accession to change the location of where the blood was drawn from.
If it is a hospital sample that we have received, so something from admission at the hospital, we note that at accessioning and that will print out on the report as well as what color top that was collected at the hospital.
Q What do you mean by what color top?
A They collect blood specimens into different types of tubes and the tops indicate what kind of preservative was present in that tube. Some

Page 89

of them have preservatives, some of them don't. Some of them will separate out the serum from the blood. And, obviously, the hospital is collecting these for whatever tests they feel are necessary. So we just get whatever they still have.
Q Got it. That's only for the hospital cases?
A Yes. We also will specify whether or not a vitreous draw was done during autopsy or if it was a nonpost vitreous draw.
Q Vitreous is eyeball fluid, correct?
A Yes. There's also a, well, Life Bank and Pepper site, which will do organ donations. Sometimes they will draw blood specimens for us. So we will make the distinction if they have done the blood draw and the vitreous also.
Q Okay. So then once the toxicology report is, I'm sorry, going back just a second.
In addition to where the sample was drawn from, does the toxicology report also include information on when the sample was drawn?
A In accessioning, there is the date that the samples were drawn. I do not remember if that shows up on the report or not.
Q Does Pathways include the time when the

Page 90

sample was drawn?
A I believe just the date.
Q Okay. Is the time the sample was drawn included in the records at the CCMEO anywhere?
A I'm not sure. On our chain of custody I know we indicate when it is accessioned into the computer. That will be a date and time. We also put a date and time for when we actually received the sample. So there's a line that asks what time did you receive the sample from the dumbwaiter and the person who did it will initial and date and put the time.
I don't believe that the pathologists when they draw that they put a time on our chain of custody.
So I don't if that's in their records or not, but I don't believe we get that information.
Q And that's not information that you routinely review either?
A No.
Q It is not there?
A Right.
Q So then once the toxicology report is generated, the pathologist uses that information as one data point for determining cause and manner of

Page 91

death, right?
A Yes.
Q But that's just one out of many data points that the pathologist uses to make that determination?
A Yes.
Q Are there any other data points that you are aware of that the pathologist might rely on to determine cause and manner of death?
A Um, they rely on the autopsies that they perform and any pathology related findings that they may find during that autopsy.
They rely on the medical records of the individuals. They rely on the investigation reports. I would assume any police reports that were generated.
Q Do the files also include information that is reported when the death is reported to the CCMEO office, do you understand what I mean by that?
A No.
Q So are you familiar at all with how a case is received by CCMEO?
A Um, no, not really.
Q Okay. Do you know if the pathologist reviews OAARS reports?

Page 92

A I do know if they review those.
Q But ultimately determining the cause and manner of death is up to pathologist and medical examiner, right?
A Yes.
Q And that determination is based on the totality of the circumstances of each case, not just the toxicology report?
A Yes.
Q And that's because every case is different than individual, right?
A Yes.
Q And in each case you have to examine the totality of the circumstances and all of the facts and information available in order to determine the cause and manner of death, correct?
A Yes.
Q And it is not possible to determine the cause and manner of death based solely on the result of toxicology testing?
A I don't, I don't, you know determine what the cause and manner of death are. I can't say that for sure. I don't know if they would determine that based on just the toxicology report.
Q Are you aware in your time at CCMEO of any

Page 93

toxicologists ever certified the cause and manner of death?
A No, nobody has.
Q Are you aware during your time at CCMEO any toxicology report including cause and manner of death?
A No, our toxicology reports do not include that.
Q You have never signed a death certificate?
A No.
Q If you could go back to be Exhibit 2 that we were just looking at. We were on the slide that says blood equals current and urine equals historical. I want to look at the next slight which is labeled interpretation.
A Okay.
Q So this is similar to what we were just discussing about how the toxicology report is interpreted by the pathologist as one data point in reaching a cause and manner of death?
A Yes, and I believe also the chief toxicologist would interpret the information we have gathered also.
Q So the chief toxicologist might look at things like redistribution, for instance, we

Page 94

discussed that earlier?
A Uh-huh.
Q And might note if any, if there are any abnormalities or concerns about the result as a result of redistribution and not the comment section of the report?
A I have not seen that in the comment section. I think this would be more conversation between the pathologist and the chief toxicologist.
Q Are you a part of those conversations?
A No.
Q Do you know why tolerance might be an issue that the chief toxicologist would consider in interpreting results?
A Yeah, tolerance, specifically with opioid is very common. An individual over time as they've continued to take an opioid will require more and more of the opioid for it to give them the same results.
Q There's no postmortem test for tolerance, is there?
A No.
Q And so in taking tolerance into consideration, that would be based on the case history?

Page 95

A Yes.
Q And the investigation?
A Yes.
Q So tolerance might be one factor that the chief toxicologist would consider in determining whether or not the dose of opioids that an overdose victim used was fatal?
A Um, yes. But I feel like these are just conversations if the pathologist is questioning it. So that wouldn't show up on the report at all that there was any inclination that this person may have had a tolerance to something. The pathologist may already know that and, you know, that will play into whatever their determination is or if they are unsure based on a value that we have on the report, they would then call Dr. Apollonio and they could discuss tolerance with him and see what play, you know, what part he thinks that may have played in the death.
Q So tolerance is one of those things, one of those data points that we discussed earlier that can, that necessitates, something beyond toxicology review to reach a cause and manner of death, right?
A Yes.
Q It is something that can make a particular

Page 96

case unique from another case even if the toxicology results are the same?
A Yes.
Q And that's why you need a pathologist to certify the cause and manner of death, right?
A Yes.
Q You have to take factors like tolerance into consideration and not just the results of the toxicology report?
A Yes.
Q What does steady state mean, do you know? And for the record I'm referring to the slide labeled interpretation on Exhibit 2?
A Um, I am not super familiar with steady state. So I feel like Dr. Apollonio would better be able to explain that better.
Q If you could turn to the next slide. This slide is also labeled interpretation and this is some of what we just discussed is similar information. So it reads, you must consider all the facts. You must consider all the facts surrounding interpreting toxicology results, correct?
A Yes.
Q It says, involve the entire team in the decision. Who would be the entire team?

Page 97

A I do not know who the entire team is.
Q Next bullet reads, conclusions based solely on blood analysis is uncertain and foolish. Do you agree?
A I, I feel, um, like the first bullet point is much better in saying that you need to have all of the information and that you wouldn't make a conclusion based just on the blood analysis.
Q You wouldn't make a conclusion based solely on the toxicology report either, right?
A No.
Q Because in order to determine the cause and manner of death, you have to consider all of the facts?
A Yes.
Q The last bullet reads, the interpretation of the results is the most difficult task of the professional team.
Do you agree with that?
A I do not know because I don't interpret the results.
Q Fair enough. Turn to the slide labeled certainty versus uncertainty. It looks like there are a couple of slides with that label. I'm looking at the second one. The first bullet point reads

Page 98

forensic?
A Okay.
Q It says, reliable, sensitive and accurate assays do not contribute to interpretation.
Do you agree with that?
A Um --
MR. GALLUCCI: Object to form and foundation, go ahead.
A I don't really understand what that's saying. I guess as I'm reading it, I don't agree with that. I feel like, um, if we have reliable sensitive and accurate assays, then the results from those would absolutely contribute to interpretation.
Q (Ms. Ranjan) The third bullet reads, reported postmortem reference ranges vary.
Do you understand what that means?
A Um, I believe that he, he's referencing, so there are, if you were to look up a particular drug and you were trying to find what the lethal range is or the therapeutic range. That you are getting that information from sources where it was reported that, so for instance, if you found a journal article about an overdose on a particular analyte. You are getting the results from that particular case or whatever that study found.

Page 99

So the numbers for a lethal, a lethal amount of drug in your system can vary widely because, well, we are already talking about with tolerance, but also, you know, the case that somebody might have reported on could have been someone who took a whole bottle of prescription medication or another one could be reported on someone who took two bottles of it and both of them were lethal, but they're both wildly different amounts of the drugs present.
Um, and then, yeah, I believe all the ranges, because these are coming from human cases and people can metabolize drugs differently. There are just a lot of factors that go into these actual drug results. So you will find ranges.
Q It is similar to what we were discussing earlier, right, the dose is lethal for one person, might not be a dose that is lethal for another person, right?
A Yes, that's true.
Q And that's reflected also in the last bullet on the slide, which says death can occur if you die even at low concentrations; is that right?
A Yes.
Q Are there particular set ranges that you

Page 100

use in the toxicology department for what might be considered a lethal dose of a given substance?
A I don't, that would be the chief toxicologist.
Q That would be a part of his process in interpreting the result and generating the toxicology report?
A Yes.
Q Do you ever have occasion to look at reference ranges in connection with your job at CCMEO?
A Um, I have. I was just reviewing an AMEIN set that somebody else had generated the data for and we have the option if the concentration comes out in a result that's higher than our highest calibrator. We can, when it is appropriate, report that as greater than whatever that amount is at the highest calibrator, as opposed to running it at a dilution to get the concentration within our working range.
So I believe it was pseudoephedrine that the analyst had written greater than a thousand nanograms per mil.
So I looked up what the therapeutic range was for pseudoephedrine and that was falling

Page 101

in that range. So I allowed that in my review to make it through greater than 1,000. But Dr. Apollonio, when he gets to the final report he could say that he wants the actual concentration and greater than a thousand is not acceptable to him, and then we would repeat it at a dilution.
Q I see. So you might be referring to reference ranges in terms of what's a therapeutic range for a particular substance just to determine if the results that you are reporting into the Pathway system will be sufficient for the chief toxicologist and the pathologist on a case?
A Yes.
Q Do you know if the CCMEO has any set reference ranges that they use in the ordinary course?
A Um, I do not know that. There's a number of references to look at, but there's no standard operating procedure that tells you specifically which ones to look at.
And, again, Dr. Apollonio typically is the one that would be looking at the ranges.
Q Just to clarify, you know for sure that there is no standard operating procedure on that issue?

Page 102

A I've never seen that.
Q Okay. Is that something that you think you would be aware of if it existed?
A Um --
MR. GALLUCCI: Object to form.
A Since I don't typically look at ranges, I suppose that could exist and I just don't know that it exist, but to my knowledge we don't have that in an SOP.
Q (Ms. Ranjan) On the occasions that you've had where you wanted to look at a reference range like we just discussed, where do you go to find that information?
A Um, the medical examiner's office out of North Carolina, they put together a spreadsheet that has a lot of drugs with their therapeutic ranges, their toxic ranges and lethal ranges. I have that presented out and that's what I consulted when I was looking at the pseudoephedrine.
We also have a reference book that we will use. The author is Basalt and that has a lot of information on many, many, different drugs.
Q Have you ever talked to the other forensic scientists or the chief toxicologists about reference ranges?

Page 103

A I'm sure that I have.
Q In your discussions with them, has anyone said, well, why don't you just go check standard operating procedure for that?
A No, no one has ever said that.
Q And those conversations, would others at your office typically refer to the same sources that you just cited?
A Yes, they would.
Q I think you can set that one aside, I'm sorry. Turn to the last page. I just have to ask you because I'm very curious. I see polar bears in a lot of presentations do you have any idea why?
A I have no idea why.
Q Somebody an Ohio Northern fan or something?
A I don't know. I've never put a polar bear in my presentation.
Q I just wanted clarify one point from your testimony earlier when I asked you about expert testimony. You talked about some testimony you had given in connection with some CCMEO cases.
A Uh-huh.
Q I just wanted to clarify in those cases, you served as a fact witness; is that correct?

Page 104

A Yeah, I think I was a fact witness in those.
Q So you were there to testify about the testing that you did through your toxicology lab, correct?
A Yes.
Q You didn't issue any kind written of report with toxicological opinions in it for that case?
A No, I did not.
Q Have you ever been asked to serve as an expert witness in a case?
A No.
Q Okay. Have you ever been asked to prepare an expert report for any legal case?
A No.
Q Do you receive performance reviews?
A We have in the past. I don't think the past two years they have done them though.
Q When was the last one you received?
A I would guess 2016, 2015 or 2016.
Q What are the criteria that were applied at that time for your job performance?
A I don't understand the question.
Q When you are being evaluated back in 2016,

Page 105

do you understand the standards against which you were being evaluated?
A Um, we were shown the evaluations and at the time I understood what they were showing me.
Q Do you recall what was included in that evaluation?
A I don't remember the specifics.
Q Have you ever received any negative feedback from one of your supervisors?
A Not to me, not that I know of.
Q You have never been formally disciplined?
A No.
Q Do you have to do performance reviews for anyone else in the office?
A Me personally?
Q Yes.
A No, I don't.
Q Have you ever had any concerns about the competency of any of your colleagues?
A No, I have not.
Q We have talked about cause and manner of death earlier. So just to clarify for the record, cause of death is the injury or disease that resulted in the individual's death; is that right?
A Yes.

Page 106

Q And manner of death describes how the cause of death occurred, right?
A So, for instance, there is categories like it could be accidental or a suicide, it is like a more generally description of what happened.
Q And that description describes what caused the individual's death?
A The manner, that describes the manner in which the person died.
Q There are five manners of death I think you said, correct?
A I'm not sure how many categories they use.
Q But, um, they are set, there is a set number of potential manners of death?
A I believe that there is.
Q One of them is accident?
A Yes.
Q And one of them is homicide?
A Yes.
Q And one of them is suicide?
A Yes.
Q An one of them is natural?
A Yes.
Q And undetermined is also a potential manner of death?

Page 107

A Yes.
Q Are you aware of any others?
A Um, I feel like I've seen things for house fires, but I don't know what exact manner that was or if they even consider that a manner, but um, yeah, I don't know. I thought there was more than five, but maybe there's not.
Q We talked about some specific policies or procedures or standard operating procedures. Are there are any others that you use in the normal course of performing your job functions?
A We have standard operating procedures for all of the assays that we perform.
So there's three large books and they're also located on the computer too. So you can read them and figure out how to perform all of the assays we do, how you should report all of the assays. We also have standard operating procedures forum accessioning and we have standard operating procedures for quality assurance issues.
Q How frequently do you find yourself referring to those standard operating procedures?
A I refer to them frequently. Um, with the opiate assay that I'm running, I don't typically need to refer to that because I've been doing it for

Page 108

so long. Although in the laboratory, we do have what we call short notes, which um, is just pulling the part of the SOP that tells you how to perform the laboratory extraction.
So I do have that out in front of me every time that I do the extraction. But for other assays if I'm reviewing them, I will pull up the SOP just so that I'm aware of the level of detection for certain analytes. They all vary. So every assay you are looking at has different levels that you are able to quantitate down to. So I will look at those to make sure I'm within the range that I need to be for that assay.
Q So you might find yourself referring to the standard operating procedures for the assays on a daily or weekly basis?
A I would say daily basis.
Q What about the one for accessioning, do you refer to those?
A I don't.
Q Because you are not involved in that process?
A Yeah, I don't actually do accessioning. If I do fill in and I needed information that someone couldn't give me, then yes, I would go to

Page 109

the SOP, but I rarely have to fill in for accessioning.
Q What about a quality assurance standard operating procedures, do you ever refer to those?
A I don't. I myself wouldn't go over and pull the quality assurance SOP, but actually I think we have two of them. One for the laboratory and one for the Cuyahoga County Regional Forensic Science Laboratory as whole. So one that is over all the laboratories. But if I had a quality assurance issue, I would talk to our quality assurance officer and he would probably reference those SOPs.
Q Who is that?
A That's Szabolc Sofalui.
Q How frequently has that happened?
A Um, I would say maybe on a monthly, maybe once a month I will go to him and ask him, just something about reporting and what he feels the best way to proceed is.
Q When is the last conversation of that nature you remember having?
A The last conversation I remember having about quality assurance issues was when I was reviewing the cannabinoid blood SOP because yearly we have to review all of the SOPs to make sure that

Page 110

they're correct and that is -- if we made changes, that the changes have been reflected.

And there was a portion that had been added that didn't make sense to me. I wasn't sure why it had been added. It seemed repetitive with what we already had in there.

So I asked him about that, if he had added it. He had not, but then we just discussed that having that portion in there would be problematic because the wording was a little bit different between that added portion and what was already currently in the SOP.

And it would have just caused confusion to somebody running the assay on how to determine if a result was acceptable or not.

Q Have you ever had a conversation with him relating to quality assurance issue related to opioids in any way?

A Um, I'm sure that I have. I know, he has reviewed an opiate set before and he has determined that we either need to repeat the sample or run a different matrix because he was unhappy with the chromatographic quality, particularly analyte. So it has been more along those lines. Like a specific case he will see the chromatography and say okay, in

Page 111

my opinion we need to reconfirm that somewhere else or in that same matrix.

Q Does he review every case?

A No, he does not.

Q How does he determine which cases to review?

A Um, in those particular instances he just happen to be the reviewer that I handed that set of data to.

Q Do you remember which analyte it was in that instance?

A It has happened on a number of them. I know that he's, um, crossed out a codeine, and in that instance he just did not feel it needed to be reported.

It has happened with 6-acetylmorphine, we ran another matrix and, yeah, it is not uncommon. He just wants the absolute best chromatography reported, as does everybody. So if anybody ever questions, chromatography will add another matrix to run to confirm that that analyte is there.

Q Aside from the standard operating procedures that apply to the opioid assays, are there any other standard operating procedures that

Page 112

apply to overdose drug deaths?

A Not in toxicology. I don't know if other departments have SOPs.

Q Does your lab ever serve as a reference lab? We talked about you sending out samples to other reference labs. Does CCMEO toxicology lab ever serve as a reference lab for others?

A I don't think we are considered a reference lab, but as I did say before, there have been occasions where another local county has sent us a few specimen to see if we can find a particular drug that they're interested in.

Q In those instances, what was the particular drug?

A Um, I remember specifically carfentanil. I don't know, there may have been other Fentanyl analogues that they were interested in.

Q When was that?

A Um, I think maybe last year. I don't actually even know if we ended up accepting all of them. We may have turned them away. I know that there was a request and then I think there was talk that this is going to be way too much work for us because they were going to have a lot of cases. So I don't know if we did do the testing on any of

Page 113

them, but I know that they had called us to see if we would.

Q Do you remember which county it was?

A I do not. It was either Stark or Summit, I'm not sure which one.

Q Do you agree that prescription opioids should be available to residents of Cuyahoga County who have a general medical need and have a prescription from a license physician?

MR. GALLUCCI: Object to form, foundation, beyond the scope of the deposition.

A Yes.

Q (Ms. Ranjan) During your studies, or at any other time in your career, have you ever had the occasion to examine the abuse potential for opioids? Strike that, let me rephrase that question.

Have you ever studied or become aware of the potential for abuse to be addictive?

A Yes, I'm aware of that.

Q How did you become aware of that?

A My mom told me that prior to ever working in forensics. I don't remember if we discussed it at Ohio University. I absolutely have heard it at work, you know, workshops I've attended or presentations that I've attended or just discussing

Page 114

with co-workers.
Q Something that you were generally aware of?
A Yes.
Q Throughout your career?
A Yes.
Q And during your time in college?
A Yes.
Q When did you first learn that Cuyahoga County had a problem with opioids?
A Um, I don't think that there's a specific time that I learned that, um, once I came back from Baltimore and I was running the opiate assay, I just saw that specifically the heroin, the number of cases involving heroin was increasing and each year it kept increasing.
Q In your toxicology report have you ever made a determination that a decedent was addicted to a substance?
A No, our toxicology report wouldn't indicate that.
Q There's no postmortem test to determine whether someone was addicted, is there?
A No.
Q Have you ever seen opioid addiction

Page 115

reported as the cause of death by a death certificate issued by CCMEO?
A No.
Q Someone can overdose on opioid whether they are addicted to it or not, correct?
A Yes.
Q Standard operating procedures that we talked about earlier, have those changed over time at all?
A Yes, they have.
Q How so?
A Um, like I said, each year we review them and, um, some procedures completely change. We add additional calibrator levels for the instance of Fentanyl, like I was saying. The most recent assay that we run, we added a lot of Fentanyl analogue analytes into the assay. So they could change like that, that you have added analytes, but yes, they change frequently.
Q But the structure for your standard operating procedures, has that changed over time? In other words, you described three sort of sets of standard operating procedures assays, quality assurance and accessioning. Am I pronouncing that term correctly by the way?

Page 116

A Accessioning.
Q Accessioning?
A That's how I pronounce it.
Q I don't know. So for those three sets of standard operating procedures, has it all been the case that those have been the set of operating procedures?
A Yes.
Q Since you have been working at CCMEO?
A Yes.
Q It is the content of those standard operating procedures has changed over time?
A Yes.
Q And specifically the content of the assay, SOP, the one that has changed most frequently?
A I believe the accessioning one has changed also. Because I think in the accessioning one is where they discussed how long we retain samples for. And at some point, it might have been when Dr. Wyman was here, I don't remember the timing, but we used to keep the samples longer. So, yes, changes like that would be reflected in the SOP.
Q Do you get historical versions of the SOPs somewhere?
A Yes, we do.

Page 117

MS. RANJAN: Do you know if those have been produced, counsel?
MR. GALLUCCI: I don't know that.
MS. RANJAN: Okay.
(Deposition Exhibit Number 3 marked for identification.)
Q (Ms. Ranjan) I'm going to show you what's been marked Exhibit 3 for the record. The first page is an email from you to an email address E-X, but the email is addressed to Dr. Gilson. So I'm assuming the email was sent to Dr. Gilson?
A Yes.
Q The date September 27th, 2012. Subject is heroin presentation?
A Uh-huh.
Q And the email reads, hi, Dr. Gilson, here some background sites I came up for you. Hopefully you will be able to use some of this. Let me know if there is anything more you need me to do or help with, Claire.
It appears you attached a presentation or some slides that you prepared for Dr. Gilson?
A Uh-huh.
Q I'm sorry, is that a yes?

Page 118

A Sorry, yes.
Q You have been doing a great job by the way in terms of not talking over each other and answering orally, great job.
A Thank you.
Q So these appear to be a set of slides that relate to some background information on heroin; is that right?
A Yes.
Q Do you recall why you prepared these slides for Dr. Gilson?
A He must have been giving a presentation somewhere and asked me to put them together. I do not recall what he was giving presentation for.
Q Okay.
A Or who he was speaking to.
Q So let's skip over the first few pages on backgrounds. I want to cover the slide that is labeled heroin chemistry pharmacology?
A Uh-huh.
Q The last bullet point describes that heroin has a half-life of only few minutes?
A Yes.
Q That's accurate?
A Yes.

Page 119

Q And then on the next page the first bullet reads, heroin is a rapidly deacetylated; is that correct?
A Yeah, yes.
Q Why don't you read it for us. Can you read the first three bullet points for us?
A Okay. Heroin is rapidly deacetylated in the blood to 6-monoacetylmorphine. And we call that 6-AM or 6-MAM, that's the abbreviation for that. 6-AM has a half-life of 36 minutes and four times more potent than morphine. 6-AM is further hydrolyzed to morphine, most likely in the liver.
Q So this describes that some of the challenges that you might have in identifying when heroin is present in a sample; is that right?
A Yes.
Q If you turn, skip the next page on pharmacology, we are going to go to the slide that is CCMEO toxicology. Can you read the second bullet point for us?
A Instead, codeine, morphine and 6-AM are the analytes most commonly detected when testing biological fluids obtained from a heroin user.
Q And last slide?
A 6-AM is the conclusive evidence of heroin

Page 120

usage. It's not a metabolite of codeine or morphine.
Q So, in other words, when you are testing samples in a suspected heroin overdose case, you would be looking for these three substances in the samples, correct, codeine, morphine and 6-AM?
A Yes.
Q And it is that 6-AM that tells you that it was actually heroin and not codeine or morphine that the person ingested?
A Yes.
Q Which sample are you testing for the 6-AM, where is sample drawn from?
A We will test the femoral blood or the heart blood. And have mixed results on whether or not we will see the 6-acetylmorphine. The urine and vitreous humor are where we more likely are to find the acetylmorphine.
Q And the timing of that test is important, right?
A Yes.
Q Because exactly what we read on one of the previous slides that 6-AM has a very small half-life?
A Yes, has a very short half-life.

Page 121

Q In other words, it would be metabolized by the body fairly quickly?
A Yes.
Q So if you turn to the next slide. I think some of those limitations are discussed. It says, 6-AM can be difficult to extract from postmortem samples?
A I'm sorry, where are you?
Q I'm sorry, I'm on the one that says CCMEO toxicology, under the legal limitations.
A Okay.
Q It says, 6-AM can be difficult to extract from postmortem samples; is that right?
A Yes.
Q And the next bullet point says, hospital treatment may allow for patient to metabolize all the 6-AM to morphine prior to death?
A Yes.
Q Last bullet point says, inconsistent rulings on cause of death, opiate versus heroin.
Can you explain what you mean by that slide?
A Back when I made this, if there wasn't 6-AM detected in the toxicology department, some of the doctors were hesitant to rule the death a heroin

Page 122

overdose. So they would say a more general opiate overdose.

I believe that they have become more consistent with how they rule amongst all of the pathologists and I think based off of histories, and the information that we give them from toxicology, they will more frequently say heroin as opposed to generic opiate term.

Q So what you are describing is that the pathologists now if you find 6-AM in the samples will try to, will try to as a general matter label those deaths a heroin overdose?

A I think that, so back then if there was 6-AM, they would rule it heroin. If there was not 6-AM, then they might just say opiate overdose. And I think now that they are more frequently saying heroin based off of the extensive investigation reports we get.

So if the person is a known heroin user and the toxicology detects codeine and morphine, they might be more like to rule that heroin, as opposed to using a more vague term of just opiate overdose.

Q Got it. In those instances where you suspect that it was a heroin overdose and you find

Page 123

codeine and morphine in the blood, now the pathologist will probably rule that a heroin death?

A I believe so, that's what I've seen on the reports.

Q But in the past there were instances where you found codeine and morphine in the blood and the person was a known heroin user, but those were ruled just general opiate deaths?

A I don't know if they were known heroin users because we didn't have extensive investigation reports prior, you know, previously.

Q Okay.

A So, yeah, from my end, I don't know if they were.

Q So there were those suspected heroin overdose deaths where you did not detect 6-AMs in the samples and those were ruled opiate deaths?

A Yes, I don't know. I believe it was just some of the pathologists were doing that, some might have still called it a heroin overdose.

Q And then in the last bullet point of the slide it says, these limitations have caused the actual numbers of heroin deaths in Cuyahoga County to be under reported; is that right?

A Yes.

Page 124

MS. RANJAN: I think now would be a good time to stop for lunch if that works for everyone.

THE VIDEOGRAPHER: Off the record 12:04.

(Recess)

THE VIDEOGRAPHER: We're on the record 12:48.

Q (Ms. Ranjan) Miss Kaspar, we just took a lunch break. We are going to continue your testimony. Now you understand that you are still under oath, right?

A Yes.

Q Um, this morning during your testimony you talked about two different types of screening tests that you use for opioid screening, I believe. One of them you called comprehensive, the other one you called basic.

Do you recall that testimony?

A Um, yes. They're not screening techniques, that's just what the pathologist can choose from to order.

Q I see. So the pathologist can order comprehensive screening or basic screening?

A Yes, and then there's additional add ons that they can add on to those too individually.

Q Are those orders specific to overdose

Page 125

deaths or are those general categories that cover other things as well?

A Um, it is completely up to the pathologist. There is nothing dictates what has to get a basic tox versus a comprehensive.

Q I guess what I'm asking would a toxicologist order a comprehensive or basic toxicology screening and say you mention fire cases earlier, a fire case?

A So the toxicologist don't order it, it is the pathologist who orders the testing.

Q I'm sorry, I misspoke, yes. Would the pathologist order a comprehensive or a basic screening in a case other than an overdose case?

A Yes, they may.

Q What is included in the comprehensive screening?

A The comprehensive we will do a volatile analysis, we will do the ELISA, we will do, um, a basic screen. So typically in the urine if we are provided urine in that case, um, if we are not provided urine, then the blood base will be performed.

Um, a urine glucose keytone test will be performed if we are provided with urine. We also

Page 126

add testing for acetaminophen and salicylate, but those have been canceled off of cases unless it is someone who is under 18, or if they have on their medication list that something they're taking contains one of those two drugs.

Um, so I said a volatile, a base, the ELISA, and then the glucose keytone and, um, the acetaminophen and salicylate. That's what we included with the comprehensive.

Q What does the volatile test screen for?

A That is looking for volatile compounds. So that typically would be ethanol, methanol, acetone and isopropanol. As well as any type of inhalant that somebody may have come in contact with.

Q What about ELISA screen, what does that test?

A ELISA is that 15 panel screen. Would you like me to list all 15?

Q Sure.

A I will try to.

Q It is not a memory test either. You can just tell me. I assume, I think you said earlier on the back of the toxicology reports there is a full list of what is available?

Page 127

A Yes.

Q Are the 15 substances listed there on the back of that toxicology report?

A They are, yes.

Q We can refer back to that, but just generally speaking tell me what the test looks for?

A We are looking for illicit drugs, cocaine, methamphetamine, amphetamine, marijuana, PCP, we have plates for groups of drugs, so tricyclic antidepressants. Opiates, Fentanyl, we have a plate specific to Oxycodone and Oxymorphone. Um, we have Zolpidem, Buprenorphine, Methadone. I think that's covering most of that.

Q Okay. Those would all be included if the pathologist orders the comprehensive screening?

A All the ELISA plates.

Q All the ELISA plates would be included if the pathologist orders comprehensive toxicology testing?

A Yes, if they order basic that also they would get the ELISA screen.

Q Okay. And then you have said the comprehensive also includes a basic urine screen, is that what you said? What was the third category that you said was in the comprehensive?

Page 128

A So it will receive some sort of basic testing and basic I'm referring to PH.

Q Oh, acidic versus basic?

A So if we have a urine, that's where we would start. We add the base screen or the basic screen on the urine. If we don't have a urine provided to us for autopsy or from receiving, then it will just get a blood base is what we call.

Q What kind of substances are you looking for there?

A That is a full scan assay. So you're not targeting anything. We can find a wide variety of drugs and you don't have to know what you are looking for and you get matches. So that you will see peaks that correspond to drug analytes, and we have built in library search matches. So if you click on those peaks, it will give you a percentage match to known drugs that are in the library.

Q Okay. And the acetaminophen, I probably horribly mispronounced, what was the acetaminophen test?

A The acetaminophen and salicylate test, those are color tests.

Q You said you only use those for minors now or if there is a medication listed that indicates a

Page 129

need to do so?

A Yes.

Q Why are you only running those on minors?

A Just to cut down the amount of testing that we were doing and we weren't getting a good return for performing all of that testing. Mostly they were coming back negative or the positives that we generate, we don't have a confirmation for the acetaminophen or the salicylate in-house. So we have to send those out to get the quantitation on them.

So only when they feel like that's the actual cause of death would they, or contributing to the cause of death would they have us send that out. And I believe that there are, um, things that they can see at autopsy that would lead them to believe that acetaminophen, definitely acetaminophen, I'm not sure about salicylate, that they were involved frequently also on scene. There may be an empty bottle and then that would indicate we need to test for that further.

Um, with children I believe the thought was let's be as comprehensive as we can with them.

Q So there's the volatile, the ELISA, the

Page 130

basic urine screen, the urine glucose, the acetaminophen test and was there one other one?
A Um, the a acetaminophen and the salicylate.
Q Okay. And that's everything that is included in the comprehensive screening?
A Yes.
Q And then you said that there was a period of time where you were only using, you were only screening for 13 substances with the ELISA and that changed to 15. What were the two substances that were added?
A We added Zolpidem and we added Buprenorphine.
Q When did that happen?
A Maybe around 2015-ish I would say.
Q During your time at CCMEO, has there been any other change to the comprehensive screening, what's included in the comprehensive screening?
A Yes. We used to include the acidic neutral test also, but we felt that with our ELISA, sorry, I forgot to mention these two. There's a plate for barbiturates and there's a plate for carisoprodol, which are many of the, which would encompass many of the analytes that we would see in

Page 131

our acidic neutral assay.
Q Those are in ELISA screen?
A They would be either on the barbiturate plate or the carisoprodol plate.
So the acidity neutral test has become an assay that the pathologist would have to specifically order or if we see a person has a history of seizures, we have been adding the acidic neutral test.
Q When did that change happen?
A Maybe 2017.
Q Any other changes that have been made to the comprehensive screening test in your time at CCMEO?
A Not that I can remember.
Q And then let's talk about the basic screening test, what's included there?
A Just the ELISA.
Q Okay. Other than the changes to the ELISA over time that we have already discussed, have there been any other changes to the basic screening test in your time at CCMU?
A No.
Q Okay. When we talked about the heroin slides earlier, you mentioned, that was Exhibit 3,

Page 132

you mentioned that there was a standardization effort that began among the pathologists when they were ruling a suspected heroin overdose.
Do you recall that testimony?
A Yes.
Q Do you know when that change, or that standardization effort occurred?
A I do not know.
Q Was it recent?
A Um, I really don't know and I don't know if anything, I guess that was just an assumption I made because I have seen them ruling more specifically over probably since 2015-ish.
So I don't know specifically that a conversation was had, it just appears that there was a conversation.
Q I see. You're not aware that they actually had that conversation and made a decision to change their policy?
A No.
Q Okay. And so then I assume you are also not aware of any documentation of any kind of policy change in that regard?
A No, I'm not.
Q Is there a way for us to look back at the

Page 133

deaths, the overdose deaths that were ruled general opiate overdose deaths that you had mentioned earlier to determine whether heroin was, in fact, the cause of death in those cases?
A Can you rephrase that?
Q Sure. You testified about a number of cases where they were suspected heroin overdose, but 6-AM was not able to be confirmed. And I believe your testimony was that some of those were ruled opiate deaths, right?
A Yes.
Q And for those cases with the cause of death on the death certificate say opiate overdose?
A Um, I believe I have seen it specifically say opiate overdose and it did not specify which opiate.
Q Do you know if there were also cases that were ruled codeine overdose or morphine overdose that were actually suspected heroin overdose?
A There may have been.
Q So is there a way for us to retroactively go back and determine which ones were the suspected heroin overdoses?
A Our office does have a statistics program. Not in toxicology and I've not used it, but we do

Page 134

have a woman who can run statistics and I believe you could do a code word search for opiate to appear in the cause of death.

So then you could probably find cases that have the word opiate in the cause of death and find cases like that.

Q. Or where they had codeine or morphine in the cause of death?

A. Yes, right, you could search for any of those terms and find what cases used those terms in the cause of death.

Q. And then from there, if we wanted to narrow that down to only list set of cases that were suspected heroin overdoses, is there some way that we can do that?

A. The toxicology reports would be helpful with that. There are codeine to morphine ratios reported in journals that show what typically you are going to see in a heroin overdose with a codeine to morphine ratio just as a general. I don't know what the exact number or what the typical ratio is, but you normally will see higher morphine level compared to the codeine.

So you could look at the toxicology report and if there's a large codeine that wouldn't

Page 135

be expected, just a large codeine on its own that's not going to be expected to be heroin related. Just a large morphine on its own would not be expected to be heroin related. So you could rule some out like that.

Q. Why is that?

A. Um --

Q. Why is it that just a large codeine or large morphine on its own would not be suspected to be heroin related?

A. So codeine is not a metabolite of heroin, it just shows up as an impurity. So if you have a really large codeine, you would expect that there would be a lot of heroin, which we don't look for heroin, but you would expect then to see a large morphine with it. As well as probably 6-AM if it is that large that you are seeing a large enough codeine that the doctor felt like that caused the death.

Q. Got it.

A. For the morphine, that would be the same. Morphine is a metabolite of heroin, but if you have such a large amount that they are going to say that that was lethal, I would suspect I would see some codeine and most likely some 6-acetylmorphine.

Page 136

Q. There's not a column in your Pathways database that would allow us to filter, these were all suspected heroin overdoses, right?

A. In Pathways, no.

Q. Or in any other databases?

A. Um, I don't know how their statistic program works. I know that they have done searches on cause of death, that's why I know that they can do that, but I'm not certain what other type of searches they can do in it.

Q. Uh-huh. In other words, in order to determine from the cases, if we were to create the list of cases you suggested, where we search on cause of death is opiate or cause of death includes the word codeine or morphine, if we were to have that set. In order to determine whether it was, whether heroin was suspected in the overdose, we would need to do an individual review of each case file, is that what you are saying?

A. Yes.

Q. Okay. I'd like to talk about some of your time when you came back to CCMEO around 2010. Around that time at CCMEO, there was a dramatic increase in heroin related deaths, right?

A. That's when I started noticing that the

Page 137

heroin deaths were increasing.

Q. In fact in your words the increase in heroin deaths started between 2006 and 2011 was dramatic?

A. I felt that the increase from 2006 to 2011 was dramatic.

Q. It was alarming?

A. Yes.

Q. When you discovered that dramatic and alarming increase in heroin deaths, did you do anything about it?

A. Um, I talked to Eric Lavins and told him that, what I was noticing. And then we, um, ran the statistical analysis in Pathways to search for 6-acetylmorphine to see how many cases we had put that result for. And that gave us an idea of how many cases we had for, I don't know what year I had told him about this. And so then we did notice that they had increased.

Q. Did you do anything else in responding to this trend?

A. Um, I must have told Dr. Gilson about it. And then an intern and I put together some data. So we ran that statistical analysis on all of those years on 2006, 2007, 2008, 2009, 2010, and I guess

Page 138

2011.

And we just, we found the number of cases that we had reported 6-acetylmorphine for all of those different years and we ended up putting together a poster presentation with that information and also we gave a PowerPoint presentation to the, it was chief of police meeting in our office. And then we also presented that information to OFTA, the Ohio Forensic Toxicologist Association.

So I think that that PowerPoint for the police chiefs and OFTA was the same information. And then later on we made the poster presentation using a lot of the same information.

Q Do you know if the CCMEO office undertook any efforts to inform the general public about this trend?

A Yeah, there were press releases frequently about the increase in heroin. Specifically, I remember when we would have a lot of death cases that appear to be overdoses based off of the scene investigation. Dr. Gilson would have us rush those cases and do the ELISA and the confirmation so that we could definitively say that they were overdoses and release that information to the public. Trying to inform people that maybe there was a particularly

Page 139

batch of heroin out on the streets or something along those lines.

Q Did you ever participate in putting together those press releases?

A No, other than providing the data from our analysis.

Q Did you ever review them before they went out?

A No.

Q Did you ever review them after they went out?

A I mean, I think I saw them maybe on the news or something like that, but no one specifically asked me to review them.

(Deposition Exhibit Number 4 marked for identification.)

Q (Ms. Ranjan) Okay. I just handed you what's been marked as Exhibit 4. The cover email is an email from Thomas Gilson, the medical examiner, to a Matt and Joe, who are not identified in this document the way it was produced. And the subject is heroin presentation. I will give you a moment to review it, but in the body he references some attached slides.

He says, I am attaching slides from a

Page 140

talk on rising heroin overdose death, sorry, rising heroin deaths in Cuyahoga County that a toxicology staffer, Claire Naso and intern, Rindi Norris, presented at the police chiefs meeting last week. I think it succinctly summarizes the public health disaster this has become and the graphs are especially brilliant.

Did I read that correctly?

A Yes.

Q Is this the attached presentation, is this the presentation that you gave to the police chiefs that you referred to earlier?

A Yes.

Q And do you agree with Dr. Gilson's characterization that the incidents of heroin around this time were a public health disaster?

MR. GALLUCCI: Objection, beyond the scope.

A Um, I don't know what makes a public health disaster, but they were certainly increasing in number.

Q (Ms. Ranjan) They were increasing enough that you undertook to inform your supervisors about your concerns, correct?

A Yes.

Page 141

Q And they were increasing enough that you say Cuyahoga County issued press releases about it, correct?

A Sorry, say that again?

Q The instances of heroin deaths were increasing significantly enough that the CCMEO released press releases about it, correct?

A Yes.

Q And if we could just take a look at first of all the title page, Alarming Incidents of Heroin Deaths in Cuyahoga County. You are listed here, along with Rindi Norris, who is the intern, right?

A Yes.

Q Turning the page background information. The purpose of this slide, I assume, is to capture some of what we discussed earlier about the difficulty in sometimes identifying heroin in your samples; is that correct?

A Yes.

Q Flipping the page to methods. It says data from 2006 to 2011 was analyzed using a statistical package which is part of the tox lab's Pathways program. Does that describe the process that you and the intern engaged in looking at the statistics?

Page 142

A Yes.
Q It says, the search for 6-AM was performed and any cases positive for 6-AM were pulled for this study.
Is that accurate?
A Yes.
Q And the next bullet says, this data is most likely underreporting the actual number of heroin overdoses.
Is that accurate?
A Oh, yes.
Q And that's because as we discussed earlier, sometimes that 6-AM will be difficult to identify even when there is a heroin overdose, correct?
A Yes.
Q The next bullet says, hospital stays, opiate versus heroin related COD.
What did you mean by that, what was that meant to portray?
A So the hospital stays that will, if somebody were to overdose, but they're transferred to the hospital, they will continue to metabolize the drug out of their system. So we may or may not receive hospital specimen from that decedent. If

Page 143

all we have is postmortem blood and they were in the hospital for two weeks due to a heroin overdose. We are not going to be able to find any of the drug left in their system that had caused the incident. So that is what the hospital stay means.
Q And then what does the police report does not equal COD mean?
A I am not sure. It looks like I'm specifically where I say Independence 2011. There must have been a specific case out of Independence that I was referencing. I believe what I mean by the police report does not equal cause of death.
The police report could say that this person, you know, the people on scene said that that person had just injected heroin, but it may turn out that it is actually Fentanyl. So you wouldn't just take that police report and say, okay, this is a heroin death because we would do our testing and find out it is not, it is a Fentanyl overdose.
Q Similarly the police might say something was cocaine, for instance, turns out that it might actually be heroin, right?
A Yes.
Q And turn to the next slide. Heroin Deaths in Medical Examiner Jurisdiction Cases. So this is

Page 144

a presentation of the analysis that you and Rindi the intern did to come up with the heroin overdose numbers?
A Yes.
Q And at the bottom you indicate that there's been 112 percent increase since 2006 in heroin overdoses?
A Yes.
Q And that's based on in 2006 there were 52 heroin overdoses and 2012, I'm sorry, 2011 there were 108?
A Yes, but I believe I calculated that not with the raw number and instead with the heroin deaths per 100,000 because this number takes into account the population in all of those years.
Q That makes sense.
Turning to the city summary towards the back.
A Okay.
Q I think this is sort of the concluding slide in the deck. It says heroin deaths have dramatically increased in Cuyahoga County over the past six years?
A Uh-huh.
Q Is that what you concluded?

Page 145

A Yes.
Q And in the City of Cleveland they've increased by about 77 percent; is that right?
A Yes.
Q While in suburbs of Cuyahoga County they increased about 176 percent?
A Yes.
Q Okay. You can set that aside.
As a result of increasing heroin deaths in Cuyahoga County, the CCMEO office decided to form what they cause the Poison Death Review Committee; is that right?
A Yes.
Q You were a member of the Poison Death Review Committee?
A I was.
Q Committee was formed around 2012; is that right?
A I believe that the meetings were in 2013. So it may have been formed in 2012.
Q Did the Poison Death Review Committee ever look at deaths other than heroin?
A No, we were specifically looking at heroin overdoses.
Q How would you describe the goals of the

Page 146

Poison Death Review Committee?
A Um, the goals were to get a group of people from a bunch of different agencies in Cuyahoga County who may all have interacted with these decedents. Obviously, prior to their overdose. Um, and gather information on points where there may be intervention, or places where we feel like maybe we could provide some education.
So it was identifying maybe groups of people that would benefit from education on the topic of addiction, specifically heroin addiction or opioids with the medical examiner's office. The data that we were generating was from deaths that were heroin related.
So, um, we would put together, there was a whole questionnaire that Dr. Gilson would fill out on each decedent that we discussed each month and we had a lot of the information on their deaths, for instance, from the investigation reports. So we could know if the person had been using drugs by themselves or if there were other people present.
If they had been recently incarcerated, if they had been in a county run rehabilitation facility, if they had been involved in the drug court program in Cuyahoga County.

Page 147

If the ADAMHS Board had any interactions with this person, we looked at the others reports to see if they had been prescribed other controlled substances. So we did a really comprehensive review on all of the heroin deaths to try to find intervention points.
Q When you started you were looking at the heroin deaths in 2012; is that correct?
A I don't recall looking at the ones in 2012. I'm pretty sure that in 2013, each month I was given a list of the people who had died the previous month and then we discussed them at the meetings.
I think the 2012 stuff was all done by Dr. Gilson, and maybe he had somebody helping him.
Q Okay. So to summarize your answer to my prior question about the goals, I believe you said that the goals were to identify points of intervention and points to provide education?
A Yes.
Q And it is fair to say one of the other goals was to do just a comprehensive review of each case. What was the purpose, were there any other purposes of that comprehensive review?

Page 148

A I don't think so. I think the purpose was to see if we could help the community using our information that we had on the decedent.
Q But specifically you wanted to help the community by identifying points for intervention and points for providing education?
A Yes.
Q And do you recall what points for intervention the committee was able to identify?
A Um, so Dr. Gilson wrote up a letter and inmates leaving the county jail were provided with that letter, I think regardless of if they were known to be addicts or not. It was educating them on tolerance and warning them of the dangers of going back to using drugs after they've been incarcerated so their tolerance would be down.
I'm not sure if those letters also went out to people leaving the rehab facilities, I'm not sure about that, but I know the jail for sure.
I know that they wanted to get Naloxone into more people's hands and I believe that also did occur.
Project DAWN originally was only dispensing Naloxone to known addicts. They would have to come and sign up and they could get the

Page 149

Naloxone prescribed to themselves. I believe it expanded to family members could come to the free clinic and they could get a Naloxone kit.
I think right now anybody in the community can go to the free clinic and get a Naloxone kit. I also know that a lot more first responders are carrying Naloxone kits.
Q Okay. So other than educating individuals who are coming out of the county jails and maybe individuals who are in rehab facilities with this Dr. Gilson letter and then expanding Project DAWN to put Naloxone in more hands, including in the hands of emergency responders, were there any other points of intervention that the committee identified?
A I don't remember specifically. I'm sure Dr. Gilson would know all of the points that were addressed.
Q You participated in most of the meetings, right?
A Yes.
Q And those are the two that you remember?
A Yes.
Q And what about points for providing education. What do you recall about what the committee determined there?

Page 150

A Um, I think that that goes along with those letters that went out to the people leaving jail because of educating them on tolerance.

And I'm not positive, I've never sat in on like final meetings of like what was going to happen from the data that was collected. I remember talks about talking with the VA Hospital because it had been identified that there were a number of veterans that were, that appeared to be addicted and had died of heroin overdoses. So that might be a point where they were going to give some education.

Q So the committee identified these points for intervention and points for education and then at some point there was a final meeting to determine which suggestions would actually be adopted, is that what you were saying?

A Yeah, or what to act on based on what was determined from all of those meetings.

Q And you weren't at that meeting?

A I was not.

Q But you were at the majority of the meetings prior to that?

A Yes.

Q Do you recall any other points that were identified for providing education other than VA

Page 151

Hospitals?

A No, I don't.

(Deposition Exhibit Number 5 marked for identification.)

Q (Ms. Ranjan) I'm handing you what has been marked as Exhibit 5. This is an email from Thomas Gilson to you and several other individuals regarding the Poison Death Review Committee.

Based on my review I believe that this is the first email, one of the first emails that was sent out to the committee members sort of kicking off the committee, is that a fair characterization? You can take your time to review it if you need to.

A Yes, I think that's a good description.

Q If you look at the attachments, looks like there's a case review form, it mentions several of the points of information that you discussed in a previous answer. Things like previous medical treatment, previous detoxification, rehabilitation, previous arrest, previous law enforcement contact. Is this the form that the committee used when they were reviewing the cases?

A So I believe that Dr. Gilson would sit there with this form and fill it in as we discussed

Page 152

the individual.

Q So Dr. Gilson was the person who actually filled out the form?

A Yes.

Q But this form reflects the type of information that the committee was attempting to collect on each case?

A Yes.

Q And then if you turn the page. There is what appears to be an agenda for the first meeting, is that what this is?

A Yes.

Q As you said, the first meeting was in February 2013?

A Yes.

Q And the members are listed here. I would just like to go through them briefly.

So obviously you and Dr. Gilson were members, who is Erin Worrell?

A She is an investigator in our office.

Q Does she still work at your office?

A She does.

Q And who is Vince Caraffi?

A He worked for the Cuyahoga Board of Health. I don't know what position he held there.

Page 153

Q What about Kevin Sur?

A I do not know Kevin Sur.

Q You don't remember him?

A No.

Q Do you know what EMA is?

A I don't.

Q What about Chief Joe Zemek?

A No, I don't remember him either. It says he's the fire chief of the City of Brooklyn.

Q You don't remember him participating in the meetings?

A Um, no, I specifically don't remember him. He may have been there, but I just don't remember him.

Q How about Rose Allen?

A Yes, I remember her.

Q She's with the Northern Ohio Academy Pharmacy?

A Yes.

Q You remember Frank Bova?

A I don't remember if he was ever at any of these.

Q What about Tim Ol --

A Oleksiak.

Q O-L-E-K-S-I-A-K.

Page 154

A I don't know. I think that at every meeting there typically was a representative from the sheriff's office, which is what the CCSO is. I don't know if it was this Tim person though, it might have been different people.
Q So different people who came each time to represent the sheriff's office?
A Yes.
Q What about Danny Williams?
A No, I don't remember him either.
Q How about Christine Delos-Reyes?
A Yes, I remember her.
Q She's with the ADA and ADAMHS Board?
A Yes, she was. She is not with them any longer.
Q Do you stay in touch with her?
A No, I don't.
Q What about Jeff Capretto?
A Yes, I remember Jeff.
Q What organization is he from?
A Um, I believe that he was a police officer. I don't know what city he was police officer for. It was one of the west side suburbs. I guess maybe it was Bay Village, but I don't remember that specifically. And I think maybe he

Page 155

was on the task force or something.
Q Do you remember which task force?
A I don't.
Q Did he participate extensively?
A Yeah, he was there.
Q How did about the Honorable C. Ellen Connally?
A No, I don't remember her ever being there.
Q Vince Holland?
A I remember Vince.
Q Was he participating extensively?
A He must have been there frequently if I remember him. Oh, wait, no, sorry I remember Vince Caraffi, I do not know if I remember Vince Holland.
Q How about Luis Vasquez?
A No, off the top of my head I don't remember who that is.
Q Do you know what the office of reentry is?
A I do not.
Q How about the Honorable David T. Matia?
A Yes, Judge Matia was there just about every meeting.
Q And he must have been participating as well?
A Yes.

Page 156

Q He runs the drug court in Cuyahoga County?
A He does, yeah.
Q Do you recall anyone else participating frequently in the Poison Death Review Committee who's not listed here?
A No.
Q Do you recall anyone else participating at all who's not listed here?
A No, I don't think so.
Q Okay. Then on the next page, it looks like when Dr. Gilson sent this email out, he attached some statistics to the back and these appear to be statistics on drug overdose deaths over the years.
Do you see that?
A I do.
Q Is this information that you reviewed in connection with your work on the Poison Death and Review Committee?
A Not specifically. He sent this, so I most likely saw this document, but this was not generated through that Poison Death Review Committee. These are probably just statistics from the office in general.
Q You think they're from the CCMEO?

Page 157

A Yes.
Q Overdose death statistics?
A Yes.
Q And these reflect that trend that you noted earlier in a dramatic rise in overdose deaths?
A Yes, on this page you can see the numbers. They have the raw numbers of cases, of heroin deaths and they do increase.
Q So, for instance, we will skip 2012 since it looks like those figures were projected, but in 2011 it looks like the office had 296 drug overdose deaths?
A That's total, yes, that's all drugs. So that could have been prescription or illicit, everything.
Q And of those 296, it looks like 107 were heroin related?
A Yes.
Q And 94 were cocaine related?
A Yes.
Q And 34 were Oxycodone related?
A Yes.
Q Do you know why Oxycodone specifically was included on these charts?
A Um, I mean I can't be certain, but I know

Page 158

that, um, people were concerned about prescription opioids being a problem, a problem to the general public. So it may have been on there to show that the numbers are much lower than the heroin.
Q They're much lower than the cocaine also, right?
A Yes.
Q You can set that one aside.
(Deposition Exhibit Number 6 marked for identification.)
Q (Ms. Ranjan) I'm showing you what's been marked as Exhibit 6 to your deposition. This appears to be meeting minutes from the February 26th, 2013 meeting, is that accurate?
A Yes.
Q First of all, were meeting minutes circulated after each of the meetings?
A I believe that they were. They were maybe, I don't remember how they were circulated, possibly the next meeting when we came in we might have gotten the meeting minutes from the prior meeting.
Q Okay. I'd like to look at the last paragraph on the first page. It says, interim report of 2012 cases January through October it says

Page 159

see attached.
A I'm sorry, where are you?
Q I'm on the last paragraph of the first page.
A Okay.
Q Do you have any idea where this information came from, these statistics?
A Okay. What was the question?
Q Where this information came from?
A Um --
Q Or who compiled it?
A Who generated the information. I do not know who put together these statistics.
Q Is this information that would have been available in the medical examiner's office?
A Um, to the general public you mean?
Q Just in general. For instance, looks like there are some stats on Naloxone administration, previous arrest and incarceration. It appears to me this data was compiled from a number of sources?
A So what it looks like to me that they went over the cases that had been ruled on for 2012 at that point. So that's why it is January through October. And so that's where that 132 comes from. They must have come up with 132 cases, and I am

Page 160

going to make the assumption that they are talking about heroin overdoses. And somebody must have gone through those 132 cases probably using something similar to the checklist that we used at the Poison Death Review Committee meetings and filled them out for those 132 cases from 2012 and then generated these statistics from that.
Q Is this the kind of information that you reviewed at the committee meetings?
A Yes.
Q So it looked like in 2012 there was Naloxone being administered in 19 percent of the EMS responses.
Do you recall discussing that?
A I don't recall specifically discussing that, but we did discuss that was one of the check boxes on that list was about Naloxone being administered.
Q That was one of the recommendations coming out of the committee was attempt to increase the availability of Naloxone, right?
A Yes.
Q And paraphernalia was present in 53 percent of the cases.
Do you see that?

Page 161

A Yes.
Q Do you know if that information was based on the medical examiner files?
A I believe that it was based on the investigation reports generated by our office.
Q And then it looks like in the 2012 cases that were examined, there was known previous illicit drug use in 79 percent of the cases.
Do you see that?
A Yes.
Q You can set that one aside.
(Deposition Exhibit Number 7 marked for identification.)
Q (Ms. Ranjan) Okay. I'm handing you what's been marked as Exhibit 7 and this appears to be the meeting minutes from the June 25th meeting of the Poison Death Review Committee.
Do you see that?
A Yes.
Q And you're listed, again, as present at that meeting?
A Yes.
Q And at the bottom of the first page, again, it looks like there's some statistics about some of the 2012 cases. And these appear to be

Page 162

OARRS statistics.
Do you see that?
A I do.
Q Were you involved in creating these other statistics?
A I may have been. I do not remember. I specifically remember pulling the ones for 2013 because I would bring those with me to the meetings. I cannot remember if I'm the one who generated the reports for the 2012.
Q Okay. You received OARRS access approximately one month prior to this; is that right?
A One month prior to the --
Q June 25th meeting?
A Oh.
Q Or sometime let's say in early to mid 2013 you receive OARRS access?
A I don't remember when I received OARRS.
Q Okay. At some point in time you requested OARRS access?
A Yes.
Q What was your reason for the purpose of requesting OARRS access?
A Um, Dr. Gilson had asked me to be the

Page 163

person to review those OARRS reports and to request them from the OARRS database. So you would have to request them and they would grant access and then I would be able to view them.
Q And he asked you to get OARRS access specifically so that you could take a look at the OARRS files for the heroin overdose cases that your office was seeing?
A Yes.
Q And so do I understand you that you may have pulled these 2012 stats, but you're not positive?
A I may have, but I don't remember.
Q So it says that in the 2012 cases, 102 out of 160 cases, I assume that's heroin overdose cases?
A Yes.
Q Had an OARRS file and it says 64 percent; is that right?
A Yes.
Q So I'll admit terrible at math, you may have to correct me here, but if I'm doing my math correctly, I believe that means that 36 percent of the heroin overdose cases from 2012 had no OARRS files?
A Yes.

Page 164

Q And then of the 102, actually backing up just a minute, that 64 percent, that's a figure that I see in a lot of the articles and press releases, data briefs, that type of information, medical examiner office releases. Do you know if this 64 percent figure comes from this data?
A Um, yes, I would assume that's where the information came from.
Q Okay. And same thing for the next one, which is of the 102 cases that had an OARRS file, 75 percent had prescriptions for opiates.
Do you see that?
A Yes.
Q So, again, just trying to do the math here, I believe that means that 26 percent of the heroin overdose deaths had no prescription for opiates in 2012?
A 26 percent of the people who had an OARRS report on file, did not have an opiate on their OARRS report.
Q Got it. Okay. And, again, 74 percent figure, if we see that in the press releases and papers and that sort of thing in regards to 2012, this is the data on which that number is based?
A Yes.

Page 165

Q So if there were 160 cases overall, and 75 had prescriptions for opiates, I've got a calculator in front of me, I'm doing the math. It looks like that's just slightly lower than 50 percent. 46.875 percent is what I'm getting for individuals, for the total number of overdose cases where there was no prescription for opiates, is that accurate?
A Um, it is not exactly accurate because, um, the doctors and the pharmacists did not have to generate an OARRS. I don't know what they would call it, but if they were prescribing someone an opiate, they don't have to report that they are prescribing it.
So this is from the doctors who self-reported that they did prescribe people. So people may have had prescriptions for opioids, but there just was not an OARRS report for that individual.
Q Do doctors make OARRS reports or do pharmacists make OARRS reports?
A From what I recall --
Q Or both?
A -- both were able to report into that system.
Q So what you are telling me is that in 2012

Page 166

it was not mandatory to make those reports?
A No.
Q So there may be instances where someone had a prescription, but it is not reflected in these statistics?
A Yes.
Q But based on the best information you had in 2012, it looks like roughly in only about 50 percent of your overdose cases had a prescription for opiates; is that accurate?
A Yes, based on the information that we had approximately that percentage, of known prescriptions.
Q Sorry, I didn't mean to interrupt you. For 75 out of 160 are the actual numbers. I will represent to you that equates to about 46 percent.
A Okay. So 46 percent of the heroin overdose case individuals from that year had known prescriptions for opioids.
Q That 160 figure, do you know if that's the total number of overdose deaths?
A That would be the total, um, heroin overdose deaths.
Q Okay.
A Can I correct something I said before?

Page 167

Q Sure.
A You asked about people who were attending the Poison Death Review Committee meetings and, um, I didn't remember anybody else, but I keep seeing the name Camille Herby. I do remember her. She was a graduate student that was helping. She actually, I think, was the one taking the minutes for the meeting.
Q Great, thank you for clarifying that.
A Yeah.
Q If at any time you think of something else that you need to clarify, that's fine, just let me know.
Um, so when you were running the OARRS information in connection with looking at these overdose deaths, I take it that you were checking to see if one, if there was an OARRS file present, correct?
A Yes.
Q Two, what the prescription was that generated the OARRS file; is that right?
A Yes.
Q Did you ever examine the timing of the prescription at all versus the information that was in the case history on file at CCMEO?

Page 168

A Um, I recall that that might have come up a couple times. There might have been something in the history about some sort of an injury and then it might have said was in a car accident in September and then we see that the OARRS report reflects that there was prescription opioids let's say from September. So I do recall a couple times that being mentioned.
Q Did you ever do a complete survey of that type of a timing kind of analysis in terms of the timing of the prescription versus the person's case history from CCMEO?
A No, we did not.
Q So, in other words, you don't know for the people who had these OARRS files, whether they took a prescription drug first or whether they abused heroin first, correct?
A Um, no, you can't tell that from the OARRS report.
Q And your data does not take that into consideration either, does it?
A Um, that was a question that was asked to family members. If they had abused prescription drugs prior to heroin, so that was something that was addressed with the family, which would have been

Page 169

documented on the checklist but not from the OARRS report.
Q So for the stats that are listed here, the 64 percent, for instance, that's just the number of people who had an OARRS file, right?
A Yes.
Q It is not the number of people who had a prescription and then took heroin, right?
A No.
Q So among that 64 percent, there could have been someone who abused heroin and then maybe engaged in doctor seeking behavior or doctor shopping and eventually got a prescription drug as well; is that right?
MR. GALLUCCI: Objection to form.
A Um, yes, there could be individuals like that.
Q (Ms. Ranjan) Among the 64 percent, there could have been individuals who first used heroin and then received a prescription drug; is that right?
MR. GALLUCCI: Objection to form.
A Yes.
Q (Ms. Ranjan) Do you know how many?
A No, I do not know the number of people who

Page 170

used heroin prior to receiving any prescribed opioid.
Q Among the 75 that had prescriptions for opiates, do you know which opiates were included in that category?
A Um, I know that hydrocodone and oxycodone, morphine, codeine, if somebody would of had oxymorphone, that would have been included.
I believe tramadol was also included. If Fentanyl would have been prescribed, that would have been included.
I'm thinking that methadone was included.
Q And methadone is oftentimes prescribed in addiction treatment; is that correct?
A Yes, it can be.
Q And similarly these numbers would not reflect someone who became addicted to an illicit substance, say heroin, Fentanyl, whatever that is and then received a prescription for methadone, right?
A Um, I'm not positive if methadone was included with the other opioids, but if it was, yeah, just by looking at the OARRS report, you would not know what that methadone was prescribed for.

Page 171

Q And you also wouldn't know how many of the 75 people who are listed here had the prescription for methadone as a result of treatment for illicit drug abuse; is that right?
MR. GALLUCCI: Objection to form.
A You wouldn't know that from looking at the OARRS report.
Q (Ms. Ranjan) And you don't know how many of the five that are listed here fall into that category?
A No, I do not.
Q One of the reasons why you were interested in looking at the OARRS reports was to determine if there were individuals included in the heroin overdose figures who were engaged in doctor shopping; is that right?
A We did look for people who were doctor shopping.
Q You used a standard definition of doctor shopping, the county's of doctor shopping; is that right?
A I received, I think Dr. Gilson must have told me what to consider doctor shopping, yes. So there was a certain number of doctors that after a person reached that amount we would say they are

Page 172

doctor shopping.
Q Do you remember what that definition was?
A I don't because I believe there was maybe a length of time that was also part of that. I don't remember specifically what I was looking for.
Q Did the committee ever discuss any attempts to reach out to doctors to influence prescribing habits?
A Um, I know that Rose, Rose Allen, the woman that was part of the pharmacy board, she would talk about that frequently that they were not prescribing the opioids correctly based off of what she was seeing on these OARRS report. I don't know if anybody actually reached out to the doctors. Yeah, I'm not sure what efforts were made to talk to them about prescribing practices.
Q When you did the effort to identify the doctor shoppers, did you ever make any kind of effort to identify doctors who appear be to be prescribing in a way that didn't meet accepted standards?
A Um, I did not. I don't know if anybody took the information from those meetings and proceed anything with them, I'm not sure.
Q That's not something that you remember

Page 173

being discussed?
A Um, no, I don't remember any specifics about talking to doctors that we felt might have been, that they were prescribing incorrectly.
Q So, for instance, Rose Allen, when she noted this issue about doctors not prescribing them appropriately, do you know if anyone on the committee ever made an effort to report those doctors to any regulatory board?
A I don't know.
Q You can set that aside for now. We may come back to it later.
A Okay.
(Deposition Exhibit Number 8 marked for identification.)
Q (Ms. Ranjan) I'm handing you what's been marked as Exhibit 8.
A Thank you.
Q This is a paper that was authored by you and Dr. Gilson entitled the Cuyahoga County Heroin Epidemic.
Do you see that?
A Yes.
Q This was published in 2014?
A Um --

Page 174

Q If you look over at the right side of the page towards the bottom of that, sort of the paragraph that's set off. Looks like it indicates the article was published in the Academy of Forensic Pathology in 2014?
A Yes.
Q Does that seem consistent with your memory?
A Yes.
Q Is this one of the articles that you reviewed in preparation for your deposition today?
A Yes, I read this article.
Q Just looking at the first page, the abstract says, why don't you actually read?
A Cuyahoga County Ohio has recently seen a dramatic rise in the number of deaths associated with heroin, which are going to be related DAH. DAH rose from 40 in 2007 to 161 in 2012 with heroin now identified in half of all overdose deaths. One third of DAH involve heroin along, the remainder in combination with other drugs.
Over this period, opioid pain reliever, OPR deaths, appear to have plateaued. Along with this rise have been shifts in overdose victim demographics. These data most notable

Page 175

include a rise in the number of women from 15 percent to 24 percent. Overdoses between the ages 19 and 29, from 8 percent to 25 percent and generally equal number of urban and suburban fatalities.
Q You can stop there, thanks. This was the paper that you authored after you did the statistical analysis with Rindi, your intern?
A No, this is Dr. Gilson's paper. He was the first author on this paper. He generated this paper from information gathered. Well, it looks like the cases that were reviewed from 2012 using probably that same checklist that we used for the Poison Review Committee.
Q You signed onto the paper as a co-author?
A Yes.
Q So you reviewed it prior to its publication?
A Yes.
Q If you could just turn to the second page, please.
I'm going to read the paragraph under results. It states, heroin mortality rose significantly from 2007, when there were 40 DAH, and again, that's deaths attributable to heroin?

Page 176

A Yes.
Q To 2012, when there were 161. Cocaine mortality did not show a similar trend and the rise in mortality associated with oxycodone, the most common lethal OPR in our jurisdiction for the entire study period, quantitively less, and it refers to table one.
And then skipping the next sentence, overall OPR mortality mirrored oxycodone. So this is presented as a proxy for OPR mortality trends since these trends were largely driven by oxycodone.
Did I read that properly?
A Yes.
Q So in other words, you are presenting oxycodone here as a comparison point because oxycodone was the drug that you saw that was driving the most deaths related to prescription opioid drugs, right?
A Yes.
Q If you look at table one, it looks like in the year 2012 there was 161 heroin deaths; is that right?
A Yes.
Q 108 cocaine death; is that right?
A Yes.

Page 177

Q And 32 oxycodone deaths?
A Yes.
Q And then turning the page. It looks like table four reflects some of those OARRS statistics that either you or Dr. Gilson put together for the Poison Death Review Committee; is that right?
A These, I believe, are the OARRS reports, yes, from 2012. So this is not what we pulled for the Poison Death Review Committee because those were 2013 cases.
But this is, but I believe they looked at the 2012 cases and applied the same checklist that we were using for the Poison Death Review Committee in 2013.
Q Okay. And we just looked at some meeting minutes that is reflected the 2012 statistics, right? That was Exhibit 8?
A Yes. Oh, Exhibit 7. Is that the meeting minutes --
Q You are right, it is Exhibit 7, I apologize.
I'm looking at the first paragraph under discussion. Are you with me there?
A Yes.
Q It says, ORP recently assumed a large role

Page 178

in mortality attributable to accidental overdose in association with substance abuse. Our results in Cuyahoga County indicate that while OPR deaths have reason in recent years, the most dramatic rise in accidental drug deaths has been due to heroin. As DAH, and again, that's death attributable to heroin, right?
A Uh-huh.
Q As DAH in Cuyahoga County have risen, our data indicate that OPR deaths appear to have reached a plateau. This suggests that the addicted population may be transitioning to heroin, possibly for cost and/or availability reasons.
Little evidence has been published documenting transitions from OPR to heroin, but given the similar pharmacological effects of the two, this shifting trend in mortality is disturbing and requires further monitoring on a national level.
Did I read that correctly?
A Yes.
Q So is it true that at this time Cuyahoga County the largest driver of overdose deaths was heroin?
A Yes.
Q And in looking at the next paragraph it

Page 179

says, as noted above, there is a dearth of firm evidence establishing the role of OPR as a gateway to heroin. Our prescription drug monitoring program data clearly establish a link between OPR use and DAH, but it is unclear whether this represents evidence of a transition between OPR and heroin, or simply reflects an addict population that uses these substances interchangeably.
Did I read that correctly?
A Yes.
Q Was that your conclusion at the time that you authored this article?
A Yes.
Q You agree that there's a dearth of firm evidence establishing the role of OPR as a gateway to heroin?
A Um, based off of the OARRS reports, those show that, um, that a majority of the people with OARRS reports had prescription opioids on their OARRS reports.
Q Let me reask my question. I'm not sure that that answer was responsive to my question.
A Okay.
Q My question was that when you authored this article, you believed it to be true that there

Page 180

was a dearth of firm evidence establishing the role of OPR as a gateway to heroin; is that right?
A Uh-huh, yes, I believe that there was evidence stating that or showing that.
MR. GALLUCCI: Let's clarify. Do you understand what dearth means?
A I take that to mean a lot of evidence.
MR. GALLUCCI: Yeah, I think that's the problem here.
MS. RANJAN: Okay.
Q (Ms. Ranjan) Is it true at the time that you authored this article in 2014, there was a lack of evidence establishing the role of OPR as the gateway to heroin?
A Um, I did not know that. I would have thought that there was evidence showing that prescribed opiates were a gateway to heroin.
Q If I were to tell you that dearth means the absence of evidence, would that surprise you then that that's what this article says?
A Yes.
Q Um, okay. You signed onto this article as an author, right?
A Yes.
Q And you took care in understanding that

Page 181

the information that you were presenting was accurate; is that right?
A Yes, to the best of my ability I did that.
Q Okay. Did Dr. Gilson write the article?
A Yes, he wrote the article.
Q Okay. Did you ever discuss it with him?
A Um, I believe that he emailed it to Camille and myself, and asked us to review it and we did. And I'm sure that we discussed it at some point. I don't remember any specific discussions that we had on it.
Q Okay. So that when you said that your expectation was that there would have been evidence establishing the role of OPR as a gateway to heroin, was that based on the OARRS reports that you looked at?
A Um, that was just based on information that I must have heard in our toxicology laboratory. I don't know if I heard a presentation where something like that was said, but that was what I felt was understood that people were using prescription opioids and then turning to heroin.
Q So it was just things that you heard other people saying, that was the basis of your conclusions?

Page 182

A Yeah.
Q Did you ever review any articles or papers about that conclusion?
A Um, I don't remember any specific articles.
Q Did you ever review the CCMU case files in order to verify that conclusion?
A Um, no, I don't know that reviewing those CCMU files would have given me that information.
Q Because the point of a death investigation is not to collect the decedents entire history, correct? Is that why you are saying that?
A Yeah, their entire history is not collected. I think we attempt to collect as much of the history as we can, but it is not always completely collected.
Q Uh-huh. But you wouldn't be able to draw that conclusion from the CCMU files because they don't collect each decedents entire medical each history, right?
A Right.
Q And they don't collect each decedents entire drug abuse history, right?
A Right.
Q If one exist at all, correct?

Page 183

A Right.
Q They wouldn't tell you when someone started using the substance, for instance?
A Some of them do.
Q Uh-huh.
A If the family has that information.
Q Uh-huh.
A Then you will see that in the investigative report when they started using drugs.
Q Uh-huh. And that's based on a conversation with family members?
A Yes.
Q Because there's no postmortem test for that, right?
A No.
Q There's no postmortem test for addiction, right?
A No.
Q Okay. So other than just hearing antenodal evidence from conversations around the office, was there anything else that you did to investigate this opinion that you had about opioids leading to heroin use?
MR. GALLUCCI: Object to form.
A Um, anything else at work you mean?

Page 184

Q (Ms. Ranjan) Anything else at all?
A Um, I may have formed the opinion just from personal experience. I'm not sure. I know that my uncle who died of a heroin overdose in the '90s, he had first been addicted to painkillers. So that may have been just a personal thing that I had experienced, and maybe that's where that came from in my mind, I'm not sure.
Q Okay. Are you at all involved in helping to compile the annual reports that the CCMU prepares?
A No.
(Deposition Exhibit Number 9 marked for identification.)
Q (Ms. Ranjan) I've just handed you what's been marked as Exhibit 9. This is an email dated November 15th, 2013 from Eric Levins to Hugh Shannon. And if you look back at the prior thread on the email, there is an email from you dated November 15th, 2013.
Do you are see that?
A Yes.
Q In your email you say, back when I was trying to do my heroin paper, you sent me this cocaine data to show me to make a chart like that.

Page 185

I am pretty sure I remember you telling me that the cocaine data came from Paula.
And then it looks Eric responds or Eric forwards your email potentially on to Hugh Shannon?
A Okay.
Q But there appears to be attached to this a chart. Is that the cocaine data that you were referencing in your email?
A Was this an attachment?
Q It was.
A Yes, that must be the data that I'm referencing.
Q Okay. Who is Paula?
A Paula Wallace is the woman who does statistics in our office.
Q Do you know why Paula may have been looking into the instances of cocaine involved overdose deaths?
A I do not.
Q Did you ever look at that yourself?
A I used the cocaine data on some of my presentations because I would make a chart showing how the heroin was increasing, how the cocaine was not increasing, but I don't know what the context of

Page 186

this email is.
Q Okay. If you look at the numbers on the chart that's attached, it looks like they reflect the number of cocaine poisonings per year.
Do you see that?
A Yes.
Q And what percentage of the number of total overdose cases that that number of cocaine poisoning represents?
A Yes.
Q And it looks like in the most recent year reported, which was 2011, there were 292 overdose cases?
A Uh-huh.
Q And that was, 70 of those were cocaine poisonings?
A Yes.
Q Which was approximately 27.97 percent of the overall, of the overdose deaths?
A Yes.
Q Is it fair to say that cocaine is involved in a substantial number of overdose deaths in Cuyahoga County?
A Yes.
Q And has that continued to be the case

Page 187

since 2011?
A Yes.
Q In fact, the number of cocaine related overdose deaths has increased in recent years, right?
A Cocaine has been involved in, yeah, I believe it would be an increase in cases over the past couple years.
Q Specifically from 2016 forward there has been a substantial increase in the number of cocaine overdose deaths, correct?
A I don't know what the actual numbers are, but I do agree that there would be an increase.
Q Okay.
MS. RANJAN: Why don't we take a little break so I can get the next set of exhibits ready to go.
MR. GALLUCCI: Sure.
THE VIDEOGRAPHER: Off the record 2:17.
(Recess)
THE VIDEOGRAPHER: On the record 2:46.
(Deposition Exhibit Number 10 marked for identification.)
Q (Ms. Ranjan) Miss Kaspar, I have just handed you what has been marked as Exhibit 10. This

Page 188

appears to be an email from Rindi Rico to Thomas Gilson, Hugh Shannon copying Carrie Mazzola and you.
Do you see that?
A Yes.
Q The date is April 5th, 2017 and subject cases from ELISA.
Do you see that?
A Yes.
Q The only thing I wanted to ask you about was the abbreviations that are being used in this document. It says IN equals 29. Do you know what IN is?
A Yes, IN represents the IN cases. So those are in county, those are Cuyahoga County cases. When we give our cases case numbers, um, they're organized by what type of case they are.
So the Cuyahoga County cases receive IN, plus the year, and then a numerical order of when they come into the office.
The OU represents outside cases, so cases from other counties and then PD would be police cases.
Q Okay, great. Are there other abbreviations that are used in these periodic emails with ELISA reports that are not indicated here?

Page 189

A I don't think you would typically see other abbreviations.
Q Okay. I saw several emails like this one, obviously, with different case numbers and different figures?
A Yes.
Q It looks to me as if there may be a weekly report that Rindi sends out; is that right?
A Whoever is running the ELISA assay that week sends out this information each week.
Q Okay. But someone sends out a weekly email about the results of the ELISA screens?
A Yeah, this is results from the ELISA, specifically the opiate plate, the Fentanyl plate and the cocaine plate.
Q How do you know it is those three plates?
A Um, you can see further down in the email it says opiates, and then it says IN 678, 712, OU 98, so that's representing three different cases that were positive for opiates in that run.
Q Got it, okay.
Is there a reason why the opiates, Fentanyls and cocaines were reported on, the results from the ELISA screens were reported in a weekly report like this?

Page 190

A Yes. Um, I believe that Hugh Shannon requested this from us. I believe he uses the information to reach out to police departments. If there may be a lot of cases from a particular city, this would also be used if they wanted to put out a press release about the number of overdose cases from a weekend or, you know, short time period, something like that.

Q Okay. So it is meant for general awareness amongst the office of sort of the trends that you are seeing; is that right?

A Um, I think it is used to give them a heads up on what our preliminary findings are and Hugh has list of cases that he already believes to be overdose cases based off of investigation, or I don't know exactly what information he's reviewing to come up with that.

So then this would be a preliminary report to him letting him know what we found in our screen.

Q Okay. So Hugh would be the best person to find out how he uses this information?

A Yes.

Q Do you use this information?

A I use this information just to know how

Page 191

many cases are going to be added to my opiate confirmation that week.

Q Okay. Fair enough you can set that aside.

(Deposition Exhibit Number 11 marked for identification.)

Q (Ms. Ranjan) I'm handing you what's been marked as Exhibit 11. This is an email from, the bottom thread from you. It appears to be to, must have been sent to Dr. Gilson because the greeting line says hi, Dr. Gilson.

Do you see that?

A Yes.

Q And it is from May 29th, 2014 and it reads, here is the database I have been keeping on all are OARRS reports. I have it filled in for all of 2013. You can look at each individual month, or if you look at the last tab, it will be a summary of each month for the whole year.

Do you see that?

A Yes.

Q I will represent to you that I printed the attached spreadsheet from the final tab of your document.

A Okay.

Q Does this document appear to be your

Page 192

recordkeeping of your look into the OARRS database for 2013 that we discussed earlier?

A It must be.

Q Did you ever keep the information in any format other than this?

A Um --

Q In other words, if someone asked you for, you know, hey Claire, where is that. Where is that OARRS data you have been keeping for 2013, is this what you would give them?

A I -- I guess so. I must have put this together to summarize all the information from all the months.

Q Okay. If you look at the first page of the spreadsheet where it says drug classes.

A Yes.

Q And then underneath of that the first category is opioids?

A Yes.

Q Do you know what is encompassed in that category?

A So it looks like further back, let's see one, two, three, four pages in, I have opioid types.

So I am going to guess that those are what fell under the opioid category of drug class.

Page 193

Q Okay. And if you look at the next page, there is a column for methadone?

A Yes.

Q Does that refresh your recollection about whether methadone was included in your opioid figures?

A Um, I can't tell. Was that just an extra column in the same opioid types or is that its own. I can't tell by looking at this. It may have been under opioid types. I'm guessing it was on its own.

Q Are you sure of that or are you guessing?

A Oh, no, I'm not certain of anything, but it does appear maybe it was under opioids. I'm getting that because as I keep turning pages. So the next thing says multiple scripts opioids and it looks like the next category starts benzo type and the methadone does appear to be part of that multiple script opioids. So I would assume then that methadone was part of the opioid drug class.

Q Okay. You can set that aside. Did you do a similar analysis for 2014?

A No.

Q Why not?

A Um, Dr. Gilson decided that we had enough data from 2013. So we didn't do any more Poison

Page 194

Death Review Committee meetings. I did not review any orders of 2014.
Q So the only year for which you did a comprehensive review of the OARRS reports for overdose deaths was 2013?
A 2013 for sure I did. I may have been the person who did 2012, but I do not remember.
Q Okay.
(Deposition Exhibit Number 12 marked for identification.)
Q (Ms. Ranjan) I'm handing you what has been marked as Exhibit 12. This is an email from you to Hugh Shannon dated October 14th, 2015. And the subject line looks to be a case number; is that right?
A Yes.
Q This is one of your in county cases based on the IN indication?
A Yes.
Q Can you read the email for me?
A Hi, Hugh, just thought you would be interested in this case. There is a huge amount of oxymorphone in the femoral, and from the investigation report it looks like the guy filled multiple oxymorphone prescriptions all on the same

Page 195

day. Seems like this was improper prescribing by the doctor and also improper filling by the pharmacist. I never see anyone taking oxymorphone anymore. I guess I was thinking most doctors weren't even prescribing it any more.
Q Did Hugh ever respond to you?
A I do not remember.
Q Did you ever take any effort to report the doctor who engaged in what you characterized as improper prescribing?
A No, I did not.
Q Did you ever speak to the Ohio Medical Board about him?
A No, I did not.
Q Did you ever take any effort to report the pharmacist who engaged in what you describe as improper filling?
A I did not.
Q Are you aware of Hugh or anyone else in your office having done that?
A I am not.
Q And by done that, I'm sorry, I mean reporting either the doctor or the pharmacist to one of the state boards?
A No, I do not know if anything went beyond

Page 196

this email.
Q Okay. You can set that aside.
During your time at CCMEO, are you aware of any doctors or pharmacists ever being reported to one of the state boards?
A I never reported anyone. Um, I do not know if other people reported somebody.
Q But that's not something that maybe Dr. Gilson or Hugh Shannon ever discussed with you?
A No, they didn't.
(Deposition Exhibit Number 13 marked for identification.)
Q (Ms. Ranjan) I'm handing you what has been marked as Exhibit 13. This is an email thread from 2014 that includes a number of people, including Hugh Shannon, Dr. Gilson, you and Joe Stopak; is that right?
A Yes.
Q Okay. So let's walk through it. If you flip to the second page, looks like this is the first at the bottom, that's the earliest email in the chain?
A Okay.
Q And in it it looks like it is Hugh saying to you, can we pull reports for any prescriptions we

Page 197

got at scene for those listed in attached Excel under Dr. Shop worksheet.
Claire, do you have the OARRS print-out reports for the 2013 cases or do you just take notes from the system?
Did I read that correctly?
A Um, yes, for the Claire part. Let me read that first part because I was trying to find out where you were.
Q Oh, sure, yeah. Take your time and read through the document.
A Okay. So I do not know what that first sentence is referring to, but yes, then clearly there is a question to me.
Q Looks like Hugh Shannon is asking you for the OARRS information for the 2013 cases.
Do you see that?
A Yes. It looks like he's asking me if I have those reports printed or if I just take notes when I'm in the system.
Q Fair enough. Okay. If you go back to the first page of the document, looks like you are responding to him and you say, hi Hugh, I have the printed OARRS reports for all the heroin tests we have gone over in our meeting so far. Let me know

Page 198

what, if anything, you need me to do with them.
Thanks Claire.
Did I read that accurately?
A Yes.
Q And then Hugh responds and says, we'll wait for Dr. Gilson, right?
A Yes.
Q And then Dr. Gilson responds and says, I don't think we can share them, at least based on my recollection of discussions I had when we got our OARRS access. I am not sure how to proceed as I do not feel we can file complaints on prescribers who may be complying with the law, but still contributing to doctor shopping. There is no requirement for checking OARRS simply because one is prescribing an opiate/opioid. It would be easier if we could generate a list of heroin overdose victims who meet the doctor shopping criteria and let the investigators take it from there. Would that be sufficient for the OSMB? Tom Gilson.
Did I did read that properly?
A Yes.
Q Looks like Hugh Shannon responds, it will have to be, right?
A Yes.

Page 199

Q So it looks like from this email that you were discussing whether or not you would report to the state medical board the doctors who are identified as being involved in doctor shopping based on the 2013 OARRS data that you reviewed; is that right?
A Yes.
Q And it looks like you were included that you would not report those doctors to the state medical board; is that right?
A That is what Dr. Gilson said and then Hugh agreed.
Q Do you know if ultimately you ever did decide to report those doctors to the state medical board?
A I do not know that.
Q Do you know if the names of the overdose victims who met the doctor shopping criteria were ever shared with the OSMB?
A I do not know that.
Q Do you recall anything about this situation other than just the email discussion that's included in this exhibit?
A No, I don't.
Q You can set that aside.

Page 200

(Deposition Exhibit Number 14 marked for identification.)
Q (Ms. Ranjan) Okay. I'm showing you what has been marked as Exhibit 14. This is a Preliminary Drug Deaths Report from the Cuyahoga County Medical Examiner's Office dated 2017.
Do you see that?
A Yes.
Q And for the record, this is not a document that I pulled from production, this is one from that I pulled from the CCMU website.
I also want to know, there are a number of pages towards the end that have black boxes. That's not information that we have redacted, that is how the document appears on the CCMU website just so it is clear. At least that's how it appeared when I printed this document.
I just wanted to discuss one slide in this document which is three pages in. It is labeled Cuyahoga County Overdose Deaths 2016, sorry 2006 to 2017, most common drugs.
Do you see that page? It is like three pages in like this. Right there.
Have you reviewed charts that have looked like this in the past?

Page 201

A Um, charts that I made to put on my presentations I have. Not the ones put out by our office to go up on the website.
Q In other words, you have seen charts from the office that summarize overdose death information before, but you've never reviewed this particular document, which is some of the annual report type of information that the CCMU publishes?
A Correct.
Q Okay. So this chart appears to list the most common drugs that are found overdose deaths in Cuyahoga County; is that accurate?
A Sorry, say that again?
Q This chart appears to reflect the most common drugs that are found in overdose deaths in Cuyahoga County?
A I believe so.
Q For the period 2006 to 2017?
A Yes.
Q And if you look at the year 2015 on the orange line there, which includes total dug overdose deaths, it looks like there is a pretty dramatic increase from 2015 from 2016.
Do you see that?
A I do.

Page 202

Q It goes from 370 overdose deaths to, sorry, to 666?
A Yes.
Q Is that consistent with your experience working at CCMEO?
A Yes.
Q You did see a very large increase in the number of total of drug overdose deaths between 2015 and 2016?
A Yes.
Q If you look at the red line, it looks like it is another line that appears to have a very large spike around the 2015 to 2016 time frame.
Do you see that?
A Yes.
Q And that line represents Fentanyl according to the chart?
A Yes.
Q Again, is that consistent with your person in the toxicology lab that around the 2015 to 2016 time frame, you saw a dramatic spike in Fentanyl deaths?
A Yes.
Q In fact, according to this chart it went from 92 Fentanyl related overdose death to 399 in

Page 203

2016?
A Yes.
Q And then the next line that appears to be sort of the highest on the graph here is the heroin line, the blue line.
Do you see that one?
A Yes.
Q Again, I think that this appears to be consistent with the information that you observed around 2010 when you came to the office and started to observe a rise in heroin related overdose deaths?
A Yes.
Q And it looks like at that time the heroin related overdose deaths in 2011, for instance, were 107, right?
A Yes.
Q And in 2012 they increased to 161?
A Yes.
Q And then if we go up to again that 2015 to 2016 time frame, looks like they increase, again, there's a pretty dramatic spike there.
Do you see that?
A Yes.
Q And they go from 2015, 184 heroin deaths to 2016, 320.

Page 204

Do you see that?
A Yes.
Q And then moving down to the dark redline there, all opioids not including Fentanyl.
Do you see that?
A I do.
Q And the reason why you wouldn't include Fentanyl in the all opioids category here is because the vast majority of the Fentanyl cases are illicit Fentanyl, right?
A That is true what you're saying, yes, the vast majority are illicit Fentanyl.
I'm guessing that they, I'm guessing that they split up all opioids, not including Fentanyl so that they can highlight how many specific Fentanyl cases and how many specific heroin cases.
I don't know that that's the best way to describe that line because it is not including heroin either, which is also an opioid and I don't know what opioids that's including.
Q Okay, that's fair.
And then looking at the purple line at the bottom.
A Yes.

Page 205

Q So the vast majority of the chart it looks like it is at zero and then all of the sudden, again, between 2015 and 2016, there's a dramatic spike.
Do you see that?
A Yes.
Q And this purple line represents carfentanil?
A Yes.
Q And from 2015 to 2016 it goes from zero overdose deaths to 56 carfentanil deaths?
A Yes.
Q From 2016 to 2017 looks like there were, jumped again from 56 carfentanil overdose deaths to 191 carfentanil overdose deaths?
A Yes.
Q So based on this chart, is it fair to say the vast majority of the overdose deaths you have been seeing in recent years have been attributable to heroin, cocaine, carfentanil and Fentanyl?
A Can you reask that question?
Q Sure. Um, we can broaden the question. Based on your experience at CCMEO in recent years say from 2015 going forward, the drugs that have been primarily responsible for the vast majority of

Page 206

overdose deaths have been heroin, cocaine, carfentanil and Fentanyl, is that accurate?
A That is accurate. I just want to point out that a number of these cases have multiple of those drugs involved.
Q Uh-huh.
A So when you are seeing these numbers, it is not that 492 were only Fentanyl, you know what I'm saying? They can have all of those involved.
Q I think I understand what you are saying. So if we take 2016 as an example to illustrate what you are saying, if we just added up, for instance, the numbers of Fentanyl, heroin, cocaine, and carfentanil, we would get a number that is much higher thank 666 right?
A Yes.
Q There are only 666 overdose deaths in 2016, right?
A Yes.
Q So in reaching that 666 figure, there were people who overdose on multiple substances, right?
A Yes.
Q Is that what you were trying to explain?
A Multiple substances were included in the cause of death for these cases.

Page 207

Q Okay.
A For a number of the cases.
Q Okay. I think I asked you this, but these figures that are listed here on the chart are consistent with your experience in your day-to-day job; is that right?
A Yeah, they seem consistent.
Q Okay. Is it true Fentanyl isn't always easy to detect in your toxicology testing?
A I do not think that is true.
Q Okay. I think we talked earlier that there are times when, for instance, a screen test might not pick up Fentanyl analogue because for whatever reason; is that right?
A Yes, specifically the carfentanil does not get picked up from our ELISA screen.
Q There were times, especially in recent years, where the introduction of new Fentanyl analogues also made it sometimes difficult to detect what was causing overdose deaths; is that right?
A I think with the screening that these analogues sometimes gave us puzzling results because, I think what you are referring to is we, if the scene would look like there was an overdose and we may get a negative for Fentanyl or opiates on the

Page 208

ELISA. And in those instances we were wondering if there was a Fentanyl analogue in the drug that may have been on scene that did not react with our kit.
But we work with the company that that provides our kits for ELISA and they test all the new Fentanyl analogues that are out to see how cross reactive it is with their plate.
And if we come across new Fentanyl analogues in our area, we can ask them to test the plates for that too. So we will get updated cross activity information on the Fentanyl analogues. So carfentanil has been the major issue with that.
Q Okay. So, in other words, in recent years you've undertaken efforts to do additional screenings or to work with your vendors to, let me just start that one over.
So I think that what you are describing is a process whereby in recent years you have undertaken to do additional screenings and work with your vendors to insure that your tests are picking up all of the Fentanyl analogues; is that right?
A Yes. I wouldn't necessarily say we have done additional screenings, we have worked with them to determine whether or not our screenings will pick

Page 209

up these Fentanyl analogues. And then in the instance of the carfentanil not reacting, we bump that confirmation based off of the case history, the Fentanyl confirmation where we will be able to detect the carfentanil.
Q Have the Fentanyl and Fentanyl analogue cases that you have been seeing in the past few years, have those required more time than the average overdose case for the laboratory to process?
A Um, now that we have an assay validated to find a very large portion of those Fentanyl analogues, it is not taking more time, but to get to that point where we had the assay validated and to determine what Fentanyl analogues we needed to be adding into that assay, that took a long time. That was the procedure that I said took about a year to develop, to get that up and running.
Q Were you involved in that effort?
A I helped with the validation. So I ran some of the validation runs.
Q And I think we discussed earlier already, but before you had your own assay up and running, you were sending some of the Fentanyl analogue cases out to a reference labs?
A Yes.

Page 210

Q Is there a fee to do that?
A Yes.
(Deposition Exhibit Number 15 marked for identification.)
Q (Ms. Ranjan) I'm handing you a document that's been marked as Exhibit 15.
It is an email chain. I want to focus on the second from the top thread in the email chain, the one that you wrote.
A Okay.
Q In that, let's see, first of all it is from you to Thomas Gilson, Rindi Rico, Hugh Shannon, Harold Schueler, Eric Lavins and Carrie Mazzola.
Do you see that?
A Yes.
Q It is dated July 3rd, 2014?
A Yes.
Q The subject is Fentanyl cases and you say, hello all, just wanted to give you an update on IN 2014-01108. Carrie and I ran, I think it is meant to say Fentanyl, right?
A Oh, yes.
Q Carrie and I ran the Fentanyl and opiate confirmations on that case today. The Fentanyl result will be report as neg, N-E-G. I think that

Page 211

means negative; is that right?
A Yes.
Q There was a trace amount there, but lower than what we can report.
Did I read that accurately?
A Yes.
Q And then the top thread in the chain, Dr. Gilson forwards onto Hugh Shannon and says, what this means is that we have heroin and likely a trace of Fentanyl, but cannot verify because I think he meant to say it is below what we report.
Do you see that?
A Yes.
Q Can you explain to me what this is talking about in terms of reportable levels of Fentanyl?
A So when we run our validation studies, we determine what level that we can, um, get down to that we can see.
So we run a set of calibrators with each run that we do. Our office policy is to report a concentration if it falls between our lowest calibrator and our highest calibrator.
There is a number of other requirements that must be met, but quantitation wise you need them to fall between lowest and highest

Page 212

calibrator.
But during validation, we also determine what we call an LOD, and that's the level of detection. So it is lower than what we can quantitively report. It is what we can see. It is the level that we are confident that we can see, but not necessarily give an accurate quantitation for.
So what this is saying is that when Carrie ran the Fentanyl confirmation, I would have to see the data to be sure, but sounds like what I'm describing is that there's a peak present at the retention time of Fentanyl, but the quantitation came out to lower than we are able to report as positive. So it will go out as a negative.
Q So in this instance the toxicology report would read negative for Fentanyl?
A I believe the final report reads not detected, but the result that we type into our result fills in negative and on the final report it says none detected.
Q Okay. Was that something that happened with any amount of frequency in 2014?
A Um, that happens with frequency now also. It happens all the time every year.
Q Specifically Fentanyl or other substances

Page 213

as well?
A Other substances as well.
Q Is it usually Fentanyl?
A No, I wouldn't say that. It happens equally with all of the analogues that we are looking for.
Q Okay.
(Deposition Exhibit Number 16 marked for identification.)
Q (Ms. Ranjan) I'm handing you what's been marked as Exhibit 16. This is an email from Eric Lavins to you and others dated August 31st, 2016.
Do you see that.
A Yes.
Q And you don't need to read it out loud, but I will just give you a chance to review the contents of the email and then I want to ask you a couple of questions about it. To the extent that you care, the particular I want to focus on is the very first thread the top of the document?
A Okay. Let me read it and see if I can get context without reading the whole thing.
Q Yeah, absolutely, take your time.
A Okay. I think I understand what's going on there. If I need to go back further, I will let

Page 214

you know.
Q Sure. About midway down the page, Eric references our CCMEO GC/MS Fentanyl and the analogue screen currently looks for, and he list substances?
A Yes.
Q And two of those are acetyl-fentanyl and carfentanil. And it says, one of them says, actually, they both say, qualitatively only recently added.
Do you see that?
A Yes.
Q And then he goes on, we will also be determining a detection limit for these new drugs and optimize the instrument for increased sensitivity.
Do you are see that?
A Yes.
Q And it says, to be added thanks to drug chemistry. Is drug chemistry a department within the office?
A Yes.
Q So it sounds like they suggested adding three more substances, is that how you interpret this email?
A I don't believe that -- well, they may

Page 215

have suggested that, but I was reading that as they actually have those substances. So we were going to get those substances from them so that we could run them in our assay and add them to our assay.
Q Okay. So does this reflect the process that you were going through around this time frame in 2016 of trying to insure that you were screening for all the Fentanyl analogues?
A Yes.
Q And then closer towards the top of the email. I'm in the second paragraph. It says, for a three week period to gauge the incidence of carfentanil and other Fentanyl analogues, those additional cases will be run or Carrie's Fentanyl GC/MS assay.
Do you see that?
A Yes.
Q Was this some sort of a trial period you were using a new essay, is that what was going on here?
A No, this was her existing Fentanyl assay. This is when it was on GC/MS before we moved it to the LC/MS triple quad.
So what he is saying is that in the previous sentence, he says any cases starting from

Page 216

August 22nd that are heroin, Fentanyl or appear to be IV drug abuse related or having a 70 GC/MS are headed to testing.
So that number 70 code is the code that is added when we need to add Fentanyl confirmation. So that was saying for the next three weeks, based off of case history, we are going to add the Fentanyl confirmation to every case that looks like it is IV drug abuse, regardless of what the ELISA came back. That's what that meant.
Q Okay. So starting on August 27th, 22nd, if you had, let me start that question over.
Starting on August 22nd, 2016, if you had a case that was, that appeared to be a heroin or Fentanyl or IV drug abuse case, you were going to add on an extra test to try to detect carfentanil and Fentanyl analogues; is that right?
A Yeah. That was to see how frequently we were seeing carfentanil with the next step and then what he is saying that there are ELISA kits for carfentanil. So we were just trying to come up with a game plan of, are we seeing this enough to have to add on another ELISA screen. So it was kind of an email where he is trying to plan what to do next.
Q Okay. And this again is another

Page 217

improvement in your testing in order to try to detect more Fentanyl analogues?
A Yes.
Q And did those efforts to improve your testing to try to detect more Fentanyl analogues continue to 2017 and 2018?
A Definitely into 2017. I'm not certain about 2018. 2018 is when we started using the most current Fentanyl assay that we run.
(Deposition Exhibit Number 17 marked for identification.)
Q (Ms. Ranjan) I'm showing you what is marked as Exhibit 17.
This is an email from Eric Lavins to you and others dated January 26, 2018. Subject line reads forward, Randox.
Do you see that?
A Yes.
Q He says, hello, as everyone knows we have limited ability to screen by ELISA in the blood for many of the fentalogues, namely carfentanil. Trying to remedy that issue, Szab.
A He abbreviated Szabolc's name.
Q Okay. And I spoke to Matt from Randox at SOFT about the Randox ELISA kits for fentalogues in

Page 218

the blood. I have not looked at the specs cross reactivities yet, but this may help us screen for the CF.

Does he mean carfentanil?

A Yes.

Q In blood specimens. There are very options for ELISA screening for many of these NPS and fentalogue like drugs. And then he goes on, short of a TOF/HMRA. What is TOF/HMRA?

A That is a very expensive instrument. Time of flight is what TOF stands for and it is high mass resolution analyzer. He's saying short of having to purchase one of those.

Q Okay. So there are very few options for ELISA screen for many of these NPS fentalogue type drugs short of a TOF or HMRA, or a brute force approach and run every case for fentalogues on LC-MS/MS, like we do with the number 32 bases.

Can you explain that portion of the email?

A Um, so he is saying that our ELISA does not catch the carfentanil.

I don't believe there's other Fentanyl analogues, there may be a couple, but for the most part we catch the other Fentanyl analogs

Page 219

other than the carfentanil. I'm not sure which of the other drugs he's referring to.

So he's saying that we may not, well, we are not catching certain ones by ELISA. The Randox kits are not the same company that we purchase our current ELISA kits from, so to run one of their kits we were going to have to do a completely different ELISA run with different outlets, which was going to add a lot of time because the ELISA is run on every case that they order toxicology testing on.

So we were going to have to do double the allocating if we added on a plate from a different company.

So he's saying here if we don't buy that very expensive mass spec, then we might need to run the opiate, I'm sorry, the Fentanyl assay. And when it moved on to the LC, that LC/MS is a LC triple quad. So it is a new instrument that we put the Fentanyls on so we can detect very low amounts of them.

So he's saying pretty much a 74, which would be the test code for the Fentanyl confirmation, would have to be added to all of these cases similar to the 32, which is a blood base.

Page 220

So if they ordered a comprehensive testing panel, he's saying that he felt we would need to add the 74 on as just a standard you're going to get that test if you order a comprehensive.

Q And he's describing this as a brute force approach. I assume he means this would be time consuming?

A Yes, it would be very time consuming.

Q And be expensive?

A Yes.

Q Is it fair to say that the office spends a reasonable or significant amount of time in trying to detect these Fentanyl analogues?

A Yes, I would say that's reasonable.

Q And, again, Fentanyl analogues are illicit drugs, right?

A Yes. Well, not fully. Carfentanil is not necessarily illicit because it is used as an animal tranquilizer, but for humans, yeah, you cannot be prescribed that.

Q Carfentanil has no approved use in humans?

A Right.

Q Do you have any idea about in terms of hours, how much resources the office dedicated to trying to insure that it was catching all of the

Page 221

Fentanyl analogues in carfentanil?

A I do not know how many hours were spent doing that.

Q Do you have any kind of estimate?

A No, I really don't.

Q Would you characterize it as a significant effort?

A I would.

(Deposition Exhibit Number 18 marked for identification.)

Q (Ms. Ranjan) Let me show you what's been marked as Exhibit 18. This appears to be a draft because it looks like the hyperlinks are not working, but to be honest, I'm not entirely positive if that's just a result of the document collection and production process. So it is unclear to me if whether this is in draft form or final form, but in any event it is a paper that appears to be authored by Dr. Gilson with the title Medical Examiner's Role in Addressing the Opioid Crisis.

Have you ever seen this document?

A I have not.

Q If you could turn to, towards the back. If you look at the bottom right-hand corner. It is page with the bates number ending in 001671016.

Page 222

I'm looking at section three current and future challenges Fentanyl and Fentanyl analogues?
A Yes.
Q I'm going to read a couple of these paragraphs aloud and then we can fill it with some questions.
It says, since its emergence in 2013 to 2014, Fentanyl has become the major driver of drug abuse mortality in our jurisdiction and several other locations in the country.
Would you agree with that statement?
A Yes.
MR. GALLUCCI: Objection, beyond the scope.
Q (Ms. Ranjan) Fentanyl is a synthetic, you know going back just a moment.
Is that consistent, is that statement consistent with your experience in your day-to-day job as a toxicologist at CCMEO? Perhaps what your counsel is objecting to is the several other locations around the country. So let me just shorten it. Since its emergence in 2013 to 2014, Fentanyl has become the major driver of drug abuse mortality in our jurisdiction.

Page 223

Would you agree with that statement?
A Yes.
Q It continues, Fentanyl is a synthetic opioid with a substantially higher potency than morphine, heroin and OPRs. And again, OPRs are prescription opioids?
A (Nods head.)
Q I'm sorry, you nodded your head, but for the record we need an oral answer.
A Sorry, yes, I was agreeing that OPRs are prescription opioids.
Q It is a Schedule II drug used medically in pain management and anesthesia. In 2016 carfentanil, a potent animal sedative, and several other chemically similar analogs of Fentanyl began to appear in the illicit drug trade. These drugs presented and continue to present significant challenges to the forensic community.
Because of their higher potency, the analogues of Fentanyl are frequently present in low concentration which have necessitated increasingly more sensitive methods of analysis to detect them. The instrumentation required for this testing is expensive and may require dedicated personnel for its operation and maintenance. This places major

Page 224

burdens on laboratories, especially in the public sector, to allocate adequate funding to keep up with the evolving crisis.
It is also often the case that these new drugs have not been previously encountered in routine drug and toxicology analysis.
I will stop there.
Based on Dr. Gilson's description here, do you think that this description is consistent with your experience in the toxicology lab at CCMEO?
A Yes.
Q Okay. So it continues. This presents challenges both in testing, as well as in the interpretation of the test results. From a testing standpoint, the identification of a new compound may again require increasingly sophisticated instrumentation, but in addition, there will be a need for reference material to permit testing for drug concentrations, et cetera. Frequently these standards are not readily available from the commercial suppliers.
This was the case when carfentanil first appeared in northeast Ohio and reference samples had be to procured from local zoos, where it

Page 225

is employed for large animals sedation/control to at least permit initial analysis.
From an interpretation standpoint, the significance of these drugs may be difficult to know as potency and human toxicity data may be limited or nonexistent. This may also have an impact on the scheduling of these drugs.
Did I read that appropriately?
A Yes.
Q And, again, is this consistent with your experience in the toxicology lab in CCMEO?
A It is.
MR. GALLUCCI: Objection to form.
MS. RANJAN: Can we go off the record for just a second?
THE VIDEOGRAPHER: Off the record 3:42.
(Recess)
THE VIDEOGRAPHER: On the record 3:59.
Q (Ms. Ranjan) Miss Kaspar, before the break we were talking about the challenges the office was seeing in detecting Fentanyl analogues in overdose cases.
Do you recall that?
A Yes.
Q I think we talked about a number of

Page 226

reasons why Fentanyl analogue overdose cases were particularly challenging?
A Yes.
Q For instance, there were new analogues that were appearing over time?
A Yes.
Q It was difficult to obtain reference materials for some of no, those analogues?
A Yes.
Q The screen tests were more time consuming?
A We were having to run a confirmation essentially as a screen. So I suppose, yes, you could say that that would be more time consuming.
Q And the process of reaching a good screening mechanism was also more time consuming?
A Yes.
Q And that process, along with running the confirmation test as a screening was also more costly?
A Sorry, say that again?
Q The screening that you were doing for Fentanyl analogues was not only just more time consuming, it was also more costly?
A Yes.
Q And is that still the case?

Page 227

A We have not seen much carfentanil in the area lately. So we're using our regular ELISA Fentanyl kit.
But we are still running the Fentanyl confirmation on all cases that have a history of IV drug abuse.
Q Did the office ever do any kind of retrospective analysis of older cases to insure that all of the Fentanyl analogues, the new ones that it started seeing were detected in prior cases?
A We did not do a retrospective analysis on all the cases. Um, there may have been particular cases that were pulled. I'm not sure, I did not participate in that, but I know that all of the old cases were not retrospectively analyzed for the new Fentanyl procedure that we have.
Q You say there may have been some cases that were individually analyzed, is that something you know of a particular instance where that happened?
A I do know of a police case that that happened on, but yeah, I don't know how many cases that occurred with. And that was also, that case, I believe, is a finished case. It is more of just in interest to us in the laboratory because we still

Page 228

have not been able to detect anything in the person's urine and the officers were certain that the person was on some sort of substance.
So I think when we were validating this new procedure, you have to run cases. We ran that to see if we could find anything. So I do know that occurred on one police case that was a finished case. Our report had been long gone. So, yeah, I don't know if other cases, there may have been other cases like that.
Q You're just not sure one way or the other?
A I'm not sure and I don't believe any cases were reopened, it would have been just to see if they had been there previously.
Q Okay. Your reopening of that other case, was that at the requests of police?
A We did not reopen it, it was just that we still had the sample, so it was just run as part of our validation when you run real cases.
Q When did the office first start routinely screening for carfentanil?
A Um, I don't remember the date it was in. I think it was in one of those emails that were in one of the exhibits. Do you want me to go back and look?

Page 229

Q Sure, if you think you might be able to find it. Looks like there's another one that you just looked at. I don't know if that's the right one.
A No. Let me see this chart that they made really quick. In 2015 we reported no carfentanil and then in 2016 we had 56 of them.
So it may have been around the time of this email that Eric sent where he said that we needed to start adding the Fentanyl confirmation to all of those cases to see how many carfentanils were there.
Q Which exhibit is that?
A That is Exhibit 16.
Q What was the date of that email?
A Um, August 31st of 2016. So I would guess that summer is when it became apparent to us that carfentanil was in the area.
Q Had you heard reports prior to that time that surrounding counties had started seeing carfentanil cases?
A Immediately prior to when we start seeing it in our area I saw reports about that.
Q Do you recall the first time you ever heard of that?

Page 230

A I do not know the date. And I had mentioned it earlier, I don't remember which county it was out of, it was either Stark or Summit, one of those, were the first ones that I remember hearing that they had a number of overdoses in one weekend and then they had them analyzed somewhere. I don't know where, it came back as carfentanil.
Q Was that a July 4th weekend by any chance?
A That could be. I'm not positive.
Q Did you ever speak to the toxicologist in that other county about the carfentanil that they were seeing?
A I did not.
Q Do you know if anyone on your staff did?
A I believer Eric did, Eric Levins.
Q Okay. Did he ever report back to you about what he learned?
A He probably did because we knew at that point about the carfentanil. I don't remember a specific conversation though.
Q Is that how you came to first learn of the carfentanil becoming a problem in surrounding counties?
A Yes.
Q Okay. Going back for a moment to the

Page 231

Poison Death Review Committee. Do you ever recall discussing in the Poison Death Review Committee any discussion about reaching out to drug manufacturers?
A I don't remember that conversation.
Q Do you recall any specific recommendations that may have been related to drug manufacturers?
A I do not.
Q What about drug distributors, did you ever discussion potentially reaching out to drug distributors?
A Who is a drug distributor?
Q That's a good question. If you don't know, then that's fine.
A Yeah, I don't know who -- what the definition of a drug distributor would be.
Q Okay. Regardless of whether you know the identity of drug distributors, do you recall anyone in the committee ever discussing maybe reaching out to drug distributors to open a conversation about their concerns?
A No.
Q And same thing for drug manufacturers, you don't recall anyone on the committee maybe mentioning let's reach out to drug manufacturers to talk to them about our concerns?

Page 232

A No.
Q Did anyone discuss reaching out to pharmacies to talk to them about your concerns?
A Possibly.
Q Okay.
A Possibly Rose Allen, the one who was on the pharmacy board.
Q Do you remember what her suggestion was?
A I do not.
Q Was that a topic that was discussed with any frequency?
A I don't remember. No, I don't remember.
Q It is not something that jumped out at your memory of having attended the meetings?
A No.
Q Have you ever reviewed the complaint in this matter?
A Um, I may have. I don't remember.
Q Do you know what a legal complaint looks like?
A Not off the top of my head.
Q Okay. This document I think you probably would have remember. It is a few hundred pages long?
A Okay.

Page 233

Q So it is pretty lengthy.
A I may have received it, I definitely did not read a 100 page long document.
Q Okay. Were you ever asked to participate in putting together a complaint for this matter, helping to draft one or contributing any information for one?
A No.
Q Do you have an understanding of what the allegations are in this case?
A I do.
Q Can you tell me what you understand about the lawsuit?
A Um, that our county has incurred a lot of costs trying to combat this opioid crisis and believes that the manufacturers and distributors play a part in the problem that we're seeing in our county.
Q Is that the extent of your knowledge about the lawsuit?
A Yes.
Q Do you know specifically who has been sued as defendants in this case?
A I did see a list, but I don't remember. I remember seeing pharmaceutical companies, that's all

Page 234

I remember about that.
Q Do you have any opinions that any retail pharmacy defendant in this case did anything wrong?
MR. GALLUCCI: Objection, beyond the scope.
A I don't have any opinions on that.
Q (Ms. Ranjan) Have you ever done any analysis that would tie any individual's death back to any actions of any particular defendant?
A No, the work that we do would not indicate where the drugs have come from.
Q So you can't say, for instance, that any particular overdose death was caused by a particular defendant?
MR. GALLUCCI: Objection, form.
A Not from the testing that I do.
Q (Ms. Ranjan) And you don't have any opinion that any particular individuals death was caused by any defendant based on the information available to you as CCMEO either?
MR. GALLUCCI: Objection.
MS. RANJAN: Let me phrase that a little differently.
Q (Ms. Ranjan) Do you have an opinion that any particular individual's death was caused by any

Page 235

defendant based on the information available to you at CCMEO?
MR. GALLUCCI: Objection.
A Not solely caused by any of the defendants.
Q (Ms. Ranjan) And can you identify any particular individual whose death you believe to have been caused by one particular defendant or group of defendants?
MR. GALLUCCI: Objection, beyond the scope.
A No.
Q (Ms. Ranjan) Let's talk about the files that you have at CCMEO. You have mentioned a couple now of databases to me. I think one was Vertiq and one was Pathways.
A Yes.
Q Are there any other places where you keep electronic files in your day-to-day work?
A Other laboratory in the offices for sure have other databases. I know Justice Tracks is used, beyond that I don't know what other databases are being used. Toxicology uses Pathways. And the building as a whole uses Vertiq, but other than that, I'm not aware of other databases what other

Page 236

departments are using.
Q Okay. But just the toxicology lab, the two that you would use would be Vertiq and Pathways?
A Yes.
Q And there was nothing else you would use routinely?
A No.
Q And just generally speaking, can you describe to me what is stored in Vertiq? I think you mentioned some investigative report, is there anything else?
A Yeah. Um, I actually don't know the full extent of what is stored in Vertiq because we only have access to certain portions of it.
Q Okay. That's fair. Can you just describe to me what is available in the portion that you have access to?
A Yes. So I am able to pull up a report that shows me a summary of all the cases that came in over a certain time period. So I can just put in whatever dates I would like to see and it will give me summary of all of the cases that were received in our office during that time.
On an individual case, I can get the investigation report. There is a lot of demographic

Page 237

information about the decedent where they live, where they were found dead, what their occupation was, there's a lot of demographic information.
There are portions of the database that are filled in describing the progress of the case. When it was received, when the tox report was received from start to finish.
There is a medication inventory on there. So if I wanted, if I wanted to look up a specific case, I can type in that case and see if there were any medications received with that case, but we also have that information in our case files for the decedent in toxicology. So I wouldn't really consult it that for that, but you could also do a search for a particular type of drug and see what decedents had that drug in their medication.
There's also a portion or a tab where you can click and see what the final verdict on the case was, so what the cause of death was.
And I think there's a spot on there where people can write notes back and forth to each other about what's gone on with the case and people that they have discussed with case with. But toxicology normally does not use that, it seems to be more investigators document what they have talked

Page 238

to police officers or family or something like that.
So, yeah, I think that's most of what I can get.
Q Okay. Are the autopsy reports stored in Vertiq?
A They may be, I don't have access to that. So not in my Vertiq.
Q You can see the cause and manner and determination?
A Yes.
Q Are the toxicology reports stored in Vertiq?
A No.
Q Are those stores in Pathways? No, you told me it was just the information to generate the report?
A Yes.
Q So once that final report is generated, is it stored somewhere?
A We have a paper copy of it in the case file. And I don't know what the official signed copy that goes to the pathologist, I don't know where it goes from there. And then through Pathways, if we needed to, we could regenerate that report.

Page 239

Obviously, it wouldn't be the official one because it wouldn't have a signature on it, but you could regenerate the report through Pathways.
Q You mention a medication inventory that's available in Vertiq. I think you said there is also a paper copy in your case file?
A Yes.
Q Is that based on the information that was gathered by the investigator?
A I believe that the investigator collects the medications that are on scene and they come to the office with the body and then they're inventoried possibly by receiving, I'm not exactly sure who is doing the inventory of the medications.
Q Are you aware of any other way that a medication makes it onto that medication inventory?
A No.
Q Do you run OARRS reports for overdose cases?
A No.
Q Do you know if anyone in the office does?
A I do not know that.
Q So those are not something that being available to you any in any of your systems?

Page 240

A I don't know if it is available to me because I did have the account at one point. I haven't tried since we haven't had that Point of Death Review Committee. So I do not know if I have access still, I have not tried, and no one in toxicology has an account. At the time it was me and Dr. Gilson. I don't know if Hugh had access. So people may be looking at them, but I have not.
Q Okay. Have we discussed everything then that you can recall that you have access to in Vertiq?
A Yes.
Q Let's talk about Pathways. You said that Pathways houses the results of all of the toxicological testing?
A Yes.
Q What else is stored in Pathways, if anything?
A Well, you don't want to hear about police cases, chain of custody for police cases in there.
Q What are police cases?
A DUID and the drug facilitated sexual assault cases. We'll have an attachment where we scan in the chain of custody. We do not do that for the coroner or medical examiner's cases.

Page 241

So Pathways can do statistical analysis. So there is a module where we could search for a certain type of drugs, so that's how Rindi and I did that. Incident of 6-AM poster.
It has nothing to do with the causes of death, it is solely incidents. So it will go through the Pathways database and find incidents of 6-AM and whatever type of case we tell it to look for. So I can be specific and say, only look at IN cases in 2017 and it will give me back the results of how many, it will tell me what cases had 6-acetylmorphine in them and what the concentration was.
It can also do statistics on our performance as a laboratory. It will generate reports on our turnaround times, but yeah, that's all that's in Pathways.
Q Are Pathways and Vertiq, you said those are the only two places that you have electronic records?
A Yeah.
Q Outside of emails, obviously?
A Yeah.
Q Do you also have electronic records on your own computer at the toxicology lab?

Page 242

A Okay. So maybe I wasn't understanding. We do have drives where toxicology has folders.
Q Uh-huh.
A There is a W drive where everybody in toxicology has access to the information that's in the toxicology folder there. Then the Y drive only select people have access to and that's more of the control documents that they just don't want anybody to be able to change.
So those are sections in toxicology that would be storing electronic data.
Q What is stored in the W drive?
A The W drive, I think originally when they made the two drives, they were supposed to mirror each other. So there's a ton of information. There is records in there, just on, um, my gosh, like everything that we have in the laboratory.
So you could go into records and you could see past order forms that we have put in. You can see certificate of analysis. Yeah, I don't know. That's where we used to store our continuing education articles. You would go in there to find the article to read.
Um --
Q Just basically a general catchall for the

Page 243

documents that you generate in the toxicology lab?
A Yeah, that is what it is.
Q So, for instance, you were working on a presentation or something like that, you might store it there?
A Um, I would probably store that on my own personal computer and then save it on a flash drive that is my own personal flash drive.
Q When you say personal computer, do you mean a computer that's assigned to you at the toxicology laboratory?
A Yes, it's a county owned computer that is at my desk.
Q Okay. Is there anywhere else at the county where you have electronic records that you personally use?
A Um, on my desktop and I think that's probably it then.
Q Okay. You talked about case files, are those paper files that the office maintains?
A Yes. We have actual manila folders that will have all of the data that was generated for that case.
Q Do you know how long those are retained?
A I do not remember how long those are

Page 244

retained.
Q And you told me that they include paper copies of the final toxicology report and the medication history. Is there anything else that's included in the case file?
A Yes, all the data that was generated from any assay that was performed for that particular case will be in that folder.
Q Anything else?
A Um, sometimes there will be email communications. If, for instance, we find a drug that we cannot confirm in-house, there may be an email from Eric to the pathologist asking if they want us to send it out for quantification and then when they respond, that will all go in the folder. That's not required, but you will see that relatively frequently. If we do send out to reference labs, their report will also be in that case file.
Q These case files are specific to toxicology?
A Yes.
Q So they would not include, for instance, the autopsy reports?
A No.

Page 245

Q Those are stored somewhere else?
A Yes.
Q Do you know if your paper case files ever make it into a larger master file for the case?
A Do you mean actual data that we generate?
Q No, I guess what I'm getting at, for instance, say that I wanted to, you know, see all the documents that the office has on a particular case, would I need to go and get the pathologist's case file and the toxicologist's case file and put those two together in order to see everything or is there some master case file that is housed somewhere that has everything?
A I believe they are actually scanning everything. So I don't know who it is that you would actually have to contact to get that information, but I believe once they scan everything, you can get the final autopsy report and toxicology report in one electronic file.
Q Okay. Are there any other paper files that the toxicology laboratory maintains other the than the case files?
A Um, we have files for proficiency tests. So it is the same idea, it is just a different type of case. They're not real cases. That's how we

Page 246

show our proficiency through the years to be able to pass these proficiency tests. So those are the only paper files that we have.
Q Do you have any kind of calibration reports for the equipment that the lab uses?
A We have maintenance logs that shows what maintenance has been performed. Some of the instruments do generate reports that are like a calibration report that show how the instrument is performing.
So we do have those documents on the GC/MS instruments. Those are called auto tunes.
With each batch of testing that we run, we generate calibration data and we have requirements that those have to meet to report out. That would be with each batch that we run.
Q Okay. Are those stored somewhere, or are those maintenance and calibration reports?
A The maintenance reports, yes, those are all stored together and the calibration reports that I'm speaking of are with the actual data. So those get stored in a particular case file and we know on that set where that's going to be stored.
Q Okay. Are there any other electronic or paper files that the toxicology lab maintains that

Page 247

we haven't discussed?
A I don't think so.
Q We already talked about the biological samples that come through the lab. You said those are stored in freezer location by the people who did the accessioning?
A When we have a case that we're actively working on, it is in a refrigerator. And then when the case is finished, then they're moved over to the freezer for the more permanent storage.
Q Okay. You also handle DUI cases for the police department?
A Yes.
Q Is it fair to say that alcohol is also a substance that is abused in Cuyahoga County?
A Um --
MR. GALLUCCI: Objection to form.
A Yeah, I don't know that I can say that it is abused, but we do have a lot of cases positive for ethanol.
Q (Ms. Ranjan) In fact, ethanol is one of the substances that you find most routinely in the samples that you can analyze?
A I would agree with that. I don't know the numbers though. I would agree we see that very

Page 248

frequently.
Q I believe you said that you don't have responsibility for any of the budgetary decisions in the office; is that right?
A No, I do not.
Q So you don't have any opinion as to, well, let me just ask you. Have the office undergone any kind of changes as a result of opioid abuse in the recent past?
A Yes.
Q Can you describe those for me?
A Um, we have had to add personnel in a number of departments. I know toxicology we got funding for an additional analyst, drug chemistry, I believe we got funding for an additional analyst, DNA has had to add on. The investigation staff has had to increase. Also I believe the pathologist have had to increase due to the number of cases that we have in the office.
We've also, as you said before, we had to purchase new instrumentation to be able to detect the low levels of the Fentanyl analogues. So our laboratory has purchased 2 LC/MS triple quads, which I don't know the exact cost of them, but they're approximately $200,000 each. And we've also

Page 249

purchased a LC or Bee trap, which is one of those high mass resolution analyzers that had been mentioned in an email that Eric had sent.
And the cost of that is approximately 500,000 for that instrument.
Q Are the LC/MS triple quads used for any purpose other than analyzing Fentanyl analogues?
A One of them is. We started out with, so when we only had one of them, the Fentanyls were on there with the cannabinoids, the AMIENs and that's it. And then we got that second triple quad and the Fentanyl assay is alone on the one and now we do cannabinoids, AMEINs and gabapentin on the original one that we have.
Q So in addition to opioids, the LC/MS triple quads are also used for cannabinoids, AMEINs and gabapentin?
A Yes.
Q And the opioids that are tested on the LC/MS triple quads, those are used to test for both illicit and prescription types of opioids?
A Yeah, it is our Fentanyl and Fentanyl analogue assay is what we are running there. So, yes, the Fentanyl is, I mean, it can be prescribed, but the rest of them are Fentanyl analogues are in

Page 250

that.
Q In terms of the opioids category, it is just Fentanyl and Fentanyl analogues that are run on that machine?
A Yes.
Q And that's the same for both of those LCMS triple quads?
A Yes.
Q And then you also mentioned an LC or Bee trap?
A Yes.
Q Is that used for any purpose other than opioid detection?
A We just got that instrument. So we have not started any testing on it yet.
Q When did you buy the two, LC/MS triple quads?
A The first one I'm not sure. I think we got that in 2014. The second one, I again do not know the year. If I could guess, I would say it was around 2016, maybe 2017.
Q So this is roughly around the time frame that we are looking at on that chart earlier where there was a significant bump in the number of overdose deaths that you were seeing, right?

Page 251

A Yes.
Q That's when you made the decision to purchase LC/MS triple quads?
A I don't know when that decision was made, but definitely the second one was purchased in that time frame and the decision was to have been made to purchase it in that time frame.
Q Okay. And then you also mentioned that you hired an additional person in toxicology, what is that person's name?
A Um, hold on, let me think because we have two new people. I have to think of who. Okay. Her name is Kim Yacco.
Q What is her role?
A I'm sorry, what is that?
Q What is her role?
A She is a Forensics Toxicologist I.
Q When was she hired?
A She was hired, I believe she started maybe three months ago.
Q Okay. You said that you also hired an additional analyst?
A Yes. So last, I think this past maybe August she started. And she was filling in a position that a Former Forensic Scientist II had

Page 252

left.
Q Okay. So that wasn't a new role, it was just filling in a role that someone else had left?
A Okay. Hold on, give me one second now. I need to think.
We got a new position and our former analyst left. One of our FS1s filled that FS2 position. I think that Laura left, and then we hired Christie, Christie is actually the new position and then because Cassandra moved up from FS1 to FS2, we her filled FS1 with Kim.
So, Christie, oh my gosh, I can't think of her name, it will come to me, I can't think of her last name. Christie is the one who filled the additional spot.
Q That's okay, her first name is Christie and it sounds like instead of two additional positions, the office added one additional position?
A One additional in toxicology, yes.
Q You also mentioned that there was a DNA analyst who was hired?
A There was at least one. I don't know how many actually were hired over there.
Q Is that a new position?
A I believe they were new positions.

Page 253

Q When I asked you the question about changes in the office related to the opioid crisis, you said that this DNA analyst was hired as a result of that. Can you explain that to me?
A So our county is trying to prosecute the dealers of these illicit drugs. So whenever drug chemistry gets a drugs submission into their laboratory, it actually first goes to DNA and they try to get touch DNA off of the packaging.
Q Do you know when that additional DNA analyst position was added?
A I don't.
Q Have there been any other changes in the office that you would, that you would attribute to the opioid crisis?
A We had to get a mobile unit that's been parked outside now. I believe it is refrigerated so that if we were to run out of space in our storage that we currently have, they could overflow into the mobile unit that's parked in the garage or like in our receiving department.
Q When did you get that mobile unit?
A I don't know the date of that.
Q Was it in the last year?
A No, it was more than a year ago.

Page 254

Q Approximately two years ago, three year ago?
A Two or three years ago is fair.
Q Roughly around that same time frame we are looking at around the chart around the 2015 time frame when there was significant increase in the overall overdose cases that you were seeing?
A Yes.
Q Is it fair to say that the bulk of the changes in the office that responded to opioid crisis have been in that same time frame, roughly 2015 going forward?
A Yes.
Q Anything else that you can think of that changed in the office in order to respond to the opioid crisis?
A No, I don't think so.
Q I think I've covered almost everything. We don't need to cover that since we talked about what we just talked about.
(Deposition Exhibit Number 19 marked for identification.)
Q (Ms. Ranjan) I'm going to show you a document I have marked as Exhibit 19.
This is an email, looks like on the

Page 255

bottom thread it is from you to Hugh Shannon dated September 27th, 2012.
A Yes.
Q Can you read it allowed for us?
A You want me to read my portion of it?
Q Yes, please.
A I just read this article on Cleveland.com last night. See link below. And it seems like the authors info is incorrect. She states that prescription opiates are killing more people than heroin and cocaine combined. I was just wondering if anyone had spoken to this woman and where she had gotten her data from. Seems like she stated pretty much the opposite of what was just discussed in the press conference.
Q Do you recall seeing this article and having that reaction?
A I don't.
Q Do you remember the press conference that you are referencing there?
A I do not.
Q Given the time frame, 2012 time frame, do you think that it is possible that that press conference related to the increase instances of heroin death in Cuyahoga County?

Page 256

A I do.
Q Does that refresh your recollection that that was, in fact, the press conference?
A I do not remember the particular press conference, but I believe it would be about heroin because we were not seeing Fentanyl at that point.
Q Can you recall other instances where there were public statements made that you believe to be inaccurate about the rate of prescription opiate dental in Cuyahoga County?
A Not off the type of my head, no, I don't.
Q You're just not sure one way or the other?
A Um, I feel like I frequently see things in the media that doesn't necessarily match with what we're seeing in our laboratory, but I don't have any any specification examples.
MS. RANJAN: Let's go off the record.
THE VIDEOGRAPHER: Off the record 4:41.
(Recess)
THE VIDEOGRAPHER: On the record 4:51.
Q (Ms. Ranjan) Miss Kaspar, I have just a couple more questions for you.
Um, the LC/MS triple quad machines that mentioned purchasing in the 2014, 2017 time frame, one of the reasons why you purchased those

Page 257

was to test for Fentanyl analogues, right?
A That's what we used the second one that we purchased for so far exclusively. So I would assume that that's why that was purchased.
Q Okay. My question is just slightly different though than the question I think you are answering. The reason why you needed the LC/MS triple quad was to test for Fentanyl analogues, right?
A Um, are you asking because of the concentration that we find them in the cases are so low, is that what you are asking?
Q What I'm asking you have been testing for Fentanyl for years before that?
A Yes.
Q And your equipment had been adequate to test for Fentanyl?
A Yes.
Q So it was the Fentanyl analogues that were the change that necessitated purchasing the LC/MS triple quad machines?
A Yes. The Fentanyl analogues are frequently at lower concentrations, so we have to be even more sensitive to detect them.
They also, um, many of them share the

Page 258

same mass, so it is hard to differentiate them, but with the LC-MS/MS, we are able to do that.
Q Okay. Has anyone asked you to collect your documents in this case? We talked a lot earlier about a bunch of electronic documents that the toxicology lab has a paper file the toxicology lab has. And I think you said you have some files on your own computer at the lab and some files on a share drop, electronic files on shared drive. To your knowledge have those files been collected for this matter?
A So I was asked to put on a flash drive any of the files that I would have relating to any presentation and publications that I made in regards to opiates, so that is what I handed over.
Q Okay. And is that the extent of your knowledge about what has been collected from the toxicology office in connection with this lawsuit?
A Um, I -- yeah, I have no idea what has been collected. That's all that I handed over. You guys obviously have a lot more than that. I'm not sure what has been collected.
Q Okay. Did anyone have any conversations with you about collecting anything beyond what you just described about you personally going out and

Page 259

collecting any about what you just described?
A No.
Q And are you aware of anything else being collected beyond what you just described?
A No.
MS. RANJAN: All right. That's all I have. I think my co-counsel would like to ask you a few questions as well. Thank you for your time.
EXAMINATION
BY MS. O'GORMAN:
Q Good afternoon. I represent two of the defendants in this lawsuit. I just have a few follow-up questions for you. I apologize that I will be jumping around a lot just things that we covered that I wanted to ask you a little bit more about.
You were asked about the allegations in the complaint and you testified that you believe the county has incurred costs because manufacturers and drug distributors played a part in connection with the opioid crisis.
Do you recall that testimony?
A Yes.
Q Who else played a part?
A Um, I believe that the --

Page 260

MR. GALLUCCI: I'm going to state an objection, beyond the scope.
A Prescribing doctors, the pharmacists, the individual themself.
Q (Ms. O'Gorman) Are you aware of any way to determine what part or what portion or percentage each of these various players is responsible for?
MR. GALLUCCI: Same objection.
A I don't have that information.
Q (Ms. O'Gorman) Do you know if anybody does?
A Um, anyone at my office?
Q Just anyone that you are aware of?
A Um, I'm -- I'm no, no one that I personally am aware of. Actually, there are people, but I don't know of anyone.
Q Are you aware of anybody in the toxicology office at the Cuyahoga County Medical Examiner's Office who has been terminated for cause?
A No.
Q Do you know somebody named Gadean Sirn, S-I-R-N?
A Yes.
Q Is he still working at the Cuyahoga County Medical Examiner's Office?

Page 261

A No, he is not.
Q Do you know the circumstances under which he left?
A I do know that he was fired. He was in the drug chemistry department though. I don't know the exact circumstances of what happened.
Q Do you know what kind of work he did in the drug chemistry department?
A I don't.
Q And that's the department that would test physical samples as opposed to biological samples?
A Yes. They receive actual drugs specimen and have to test and determine what is present.
Q Do you recall your testimony about access to other's data for the purpose of your work on the Poison Death Review Committee?
A Yes.
Q Do you know if anybody for the Cuyahoga County Medical Examiner's Office has reviewed OARRS data since 2013?
A I don't know that.
Q Do you still have the print-out of the OARRS data that you referenced in the emails you looked today?
A I believe that I do.

Page 262

Q And where do you have those?
A Um, I'm assuming they're in my desk filing cabinet drawer.
Q Okay. So if we asked your counsel to provide those to us, would you be able to take them out of your desk and produce them?
A I believe that I would.
Q What do the print-outs entail?
A Um, I don't remember because I haven't looked at them in a long time. They -- I'm assuming they have the person's name on them and then there must have been a certain amount of time that we were able to look back. So we must have picked a time frame to look back and then you would just see what prescriptions were present on that person's OARRS report. I believe the prescribing doctor was on there, I believe that there was a date that the prescription, there was some date, I'm not sure when the prescription was written or when it was filled.
And then I believe you could also see what quantity of pills the prescription was for and how it was supposed to be taken. I believe all of that was on there.
Q So would you have a print-out for each of the individual cases that you were reviewing?

Page 263

A Yes.
Q Did you obtain medical records for any of those cases?
A I did not.
Q Do you know if anybody on the Poison Death Review Committee did?
A I don't know for sure. Dr. Gilson may have if someone did, it would have been him.
Q Do you recall Exhibit 13 in which you there was a question raised about whether a complaint could be made to the Ohio Medical Board?
A Um, yes, I recall this email.
Q Were you ever contacted by a member of the Ohio Medical Board for information about suspected cases of doctor shopping?
A I was not.
Q If you recall looking at Exhibit 12, there was an incident of suspected doctor shopping that came to your attention.
Do you remember being asked about that?
A Yes.
Q Do you recall any other instances of suspected doctor shopping that came to your attention at the time of the Cuyahoga County Medical

Page 264

Examiner's Office?
A There was a case where I remember the investigation, investigation report saying that the person was suspected of doctor shopping. So they probably got that from the family. I don't even know, that may have been this case. The way that I stated this, I actually say the investigation report is where I got that information from.
So they must have made a comment about how many oxymorphone prescriptions, they must have said something that made me think that because we don't typically know how many people have prescribed opioids to people based on the scene.
Q You are not aware of anybody at the Cuyahoga County Medical Examiner's Office reporting any doctors who are suspected of inappropriate prescribing, are you?
A I don't know of anybody.
Q As part of your work to accomplishments and challenges session to decedent medical records?
A Not that I know of.
Q Does anybody in the office have access to medical records?
A I would believe that the pathologist would have access to that.

Page 265

Q You talked about a mobile unit that was brought in in the event of overflow capacity was needed. Do you know whether that has ever been used for that purpose?
A I do not believe we have had to use that.
Q You testified earlier that you're not a medical doctor, correct?
A Correct.
Q Have you ever been participated in a call by a drug manufacturers to a doctor's office so where a drug representative would go in to speak to the doctor. Have you ever participated in any such communication?
A No.
Q Have you ever seen promotional materials for opioid medications?
A I'm sure that I have. I can't think of any specific ones.
Q Under what circumstances would you have seen it?
A Um, I would think I have seen one on TV, but I can't think of any specific ones.
Q Can you think of any specific drug that these television ads might have related to?
A No, I can't.

Page 266

Q Do you have any knowledge in which frequency doctors from Cuyahoga County have received promotional visits by pharmaceutical companies?
A No, I do not.
Q Do you have any knowledge of specific promotional campaign for opioid medications that you consider to be false or misleading?
A No, I do not.
Q Do you have any knowledge of any specific doctor who received false or misleading information during promotional visits by a opioid manufacturer?
A No, I do not.
Q Do you have any knowledge regarding any doctors reaction to promotional visit by an opioid manufacturer?
A No, I do not.
Q And you can't identify any prescription openings that were written for a patient because of a promotion a pharmaceutical company?
A No.
Q Can you identify doctors who changed their prescribing practices and prescribed opioid medications because of a visit by a pharmaceutical manufacturer to their office?
A No.

Page 267

Q Do you have any knowledge of how drugs are regulated in this country?
A No.
Q Are you aware that the FDA approves labeling for medications?
A Yes.
Q Are you aware that manufacturers of medications are required to submit their labeling to the FDA for approval?
A Yes.
Q Are you aware that manufacturers are also required to submit promotional materials to the FDA?
A No.
Q Have you ever contacted any manufacturer of opioid medication?
A No.
Q Have you ever looked at a website of any opioid manufacturers?
A Yes.
Q When did you do that?
A I know that I have looked at the website for, I think when I was making one of my presentations I was talking about the formulation changes of Oxycontin and Opana, and I believe one of my references was the maybe Endo website for the

Page 268

oxymorphone and the Opana.
They must have had some sort of press statement about how they were changing the formulation and when that was going to occur.
Q And you went and visited the website to look at that information or did you capture it and lump it in your presentation?
A Yes, I put that information in the presentation.
Q Do you know why you included that information?
A That was one of my hypothesis why people may be starting to use heroin was that the formulation change on those two prescription medications made it more difficult for them to abuse.
Q How did you formulate that hypothesis?
A That was just something that I came to on my own.
Q Did you speak with anybody at the medical examiner's office about it?
A Um, I'm assuming I did. Probably Eric Lavins, my supervisor and I believe Dr. Wyman was the chief toxicologist at the time. I would think that I had conversations with them about that.

Page 269

Q Do you recall what their response was?
A No, I don't.
Q Were you of the belief that the change in formulation made these drugs more difficult to abuse?
MR. GALLUCCI: Objection, outside the scope.
A Um, I believe that it did make them more difficult to abuse.
Q (Ms. O'Gorman) Is there an IT person in the Cuyahoga County Medical Examiner's Office?
A Yes.
Q Who is that?
A Um, there are three of them. Bill Lexy is the one we deal with most frequently because Pathways database is his. He created it.
Um, Bhavna Patel. That's B-H-A-V-N-A, I believe is how she spells it. And Jody Schneider.
Q So Pathway is a custom system for the purpose the Cuyahoga County Medical Examiner's Office?
A It is.
Q The other system is called Vertec?
A Vertiq.

Page 270

Q Is that a custom system as well?
A I don't think so.
Q Do the Vertiq and Pathfinder, Pathway systems communicate with each other?
A No.
Q Is there any reason why the toxicologist department doesn't use the Vertiq system?
A I have no idea why we selected Pathways. I don't even know if Vertiq has the capability to have a module for toxicology.
MS. O'GORMAN: I have nothing further, thank you.
EXAMINATION
BY MR. EMCH:
Q How you holding up?
A I'm pretty tired.
Q First question is, have you ever in your professional career up to this date talked this much in one day?
A No.
Q Okay. I'll try to be pretty brief. I apologize in advance if there is anything that sounds duplicative, I'm sorry about that. Sometimes we all get lost in all of the stuff that's going on. So my memory is not the best in the world.

Page 271

A Okay.
Q So let me know if you think you have already answered the question and I will probably accede to that request and I will withdraw it, okay?
A Okay.
Q You read the complaint, I think, or you looked at the complaint in this case?
A I definitely looked at it.
Q You read the name, the names of the defendants?
A I did.
Q In the case?
MR. GALLUCCI: I will state an objection. I don't think that was the testimony. There is a distinction between the complaint and list of defendants.
Q (Mr. Emch) You have read or seen a list of the defendants, the name of the defendants in the case?
A I have.
Q I will just mention the ones that our drug distributors, okay?
A Okay.
Q AmerisourceBergen Drug Corporation, you ever hear of them?

Page 272

A No.
Q McKesson Corporation?
A Maybe. I don't know, we have gloves from McKesson. I don't know if that's the same company or not.
Q If you did hear of them, did you know of them as a distributor?
A No.
Q And Cardinal Drug?
A No.
Q Endo?
A No.
Q Prescription Supply Incorporated?
A No.
Q HBC Service Company?
A No.
Q HD Smith?
A No.
Q So I take it correctly that you don't have any personal or professional information or complaint of any kind about any of those defendants that I have just named for you or any suggestion that any of them might have any responsibility with respect to the so-called opioid epidemic?
MR. GALLUCCI: Objection to form and

Page 273

foundation, outside the scope.
A I don't understand what those companies do, so I don't have an opinion right now on whether or not they played a part in any of this.
Q (Mr. Emch) Have you ever, to your recollection, either heard a discussion in a meeting or seen a report from any of the various agencies around the state or any the county that have been addressing this issue over the past many years or been any conversations with Dr. Gilson or others in connection with committees you may have served on or anything else that suggested that any of these distributor defendants had responsibility for the opioid epidemic?
A I do not know.
Q Do you remember any?
A Right now, I do not remember any.
Q I will also skip around.
A Okay.
Q A little bit. Your soiree into the world of OARRS, was that at the request, I think, of Dr. Gilson; is that right?
A Yes.
Q What hoops did you have to jump through in order to get access to OARRS, do you understand my

Page 274

question? I'm using a technical term, what hoops did you have to jump through?
A Um, there were hoops, I don't remember all of them. I know Dr. Gilson made an account, but I believe that he was not able to request the reports and then himself, give himself access. So I needed to have an account so I could be the person to requests the reports and then I believe he would give the okay that I could have those.
Q Did you deal with people at the board of pharmacy yourself in order to get access?
A No.
Q Did anyone place any limitations on you, for example, did they say to you, make any limits on whose records you could look up or anything?
A Yes. We were only allowed to look up the cases that were involved with our Poison Death Review Committee. So we get a list each month of the decedent from the prior month, or whatever the time frame was, and those were the ones I was allowed to look up. I was not allowed to look up other decedents or people in general.
Q So those were all drug overdose or drug poisoning death cases?
A Yes.

Page 275

Q All right. And you were doing this, for lack of better terminology retrospectively, right? These cases were all autopsy and basically closed cases. And so you went back a year or so and picked up and looked at each of those individual death cases?
A I don't believe that they were closed cases. There might have been more than a month lag, but the way I'm remembering it is that we would discuss the cases from the month prior. So the toxicology, or some of the toxicology would be performed. I don't believe all the toxicology was necessarily finished on all of those cases and so then the cases would not have been completed.
Q So you did this over a long period of time?
A We did it over a period of one year.
Q All right. And I believe you testified, I just want to confirm, do you have any knowledge as to whether or not the forensic pathologist in your office routinely accessed OARRS?
A I do not know that.
Q You testified, again, correct me if I've got this wrong, but my understanding is you testified about some additional staffing and some

Page 276

additional equipment?
A Yes.
Q That your office has gotten that you are aware of.
I think I heard you say that those additions occurred around the 2015 and forward time frame; is that right?
A Yes.
Q And do you agree that all of those or do you attributable those additions, the additional staff, the additional equipment, et cetera, do you attribute that to added caseload as far as drug poisoning deaths are concerned?
A I do.
Q Do you agree that all of the added caseload, the entire added caseload that we're talking about that caused these increases are due to heroin, cocaine, carfentanil and the Fentanyl analogues that came into play in 2014 and 2015?
A I can't say with certainty that all of them are, but a majority of them, yes.
Q Let's look, you will have to help me with the number because I don't have the number on this sheet. Will you go back to that, to the page with the most commonly found drugs?

Page 277

A Exhibit 14.
Q Exhibit 14. And the most common drugs, do you see that?
A Yes.
Q All right. If you are go back to 2010, you see the brown line that is all opioids, not including Fentanyl?
A Yes.
Q You see that one?
A Yeah.
Q What's the high point, what's the most?
A For 2010 you said or for all?
Q I'm looking for the whole line. What's the highest number there, what year?
A Oh, sorry, okay. You are asking the either highest line in the year 2010.
Q It is 113, right?
A I am not seeing where you are looking. I see 113 in 2011.
Q Right, 2011. That's the highest point for all opioids?
A Yes.
Q You agree with me that every increase, I mean, after 2011, the all opioid line is fewer than 113, isn't it?

Page 278

A Yes.
Q No caseload increase after 2011 attributed to all opioids, except for Fentanyl --
MR. GALLUCCI: All opioids, not including Fentanyl confirmation.
Q (Mr. Emch) Right.
A Yes.
Q And every number that indicates an increase after 2011 is either heroin, cocaine, carfentanil or again, Fentanyl showing up in 2014 and 2015 when the analogues came on the scene?
A Yes.
Q So, again, you agree with me that the increases in the caseload and the need for the additional staffing and equipment since 2011, occurring in 2014 and 2015, is all because of increased deaths due to heroin, cocaine, carfentanil, Fentanyl analogues?
MR. GALLUCCI: Objection to form, foundation, misrepresents prior testimony.
A Um, I agree that those all increased and caused the increase in the cases that we've had in our office.
Q (Mr. Emch) I want to ask a few questions about going back to, help me understand how, a

Page 279

little bit how your office works. I'm not going to spend seven hours on this, on a particular area. So let me start with, do you folks in the toxicology department, do you have any direct involvement in the determination of the cause of death? By that I mean, what actually goes into that space on the death certificate?
A Um, we do not. We do not provide the cause of death if that's what you are asking.
Q Do you talk with the pathologist about that, do you get with them at any point or do they come to you and say, here is the toxicology report, let's talk about what I should put in for the cause of death.
A The chief toxicologist does.
Q That's part of my question. You, as a Tox III don't do that. You submit your stuff to the chief toxicologist and he or she does that?
A Yes.
Q Has that been the routine ever since you came back in 2010?
A Um, I would say the supervisor or the chief toxicologist is the one that will speak with the pathologist. Except for when we did not have a chief toxicologist.

Page 280

Q Okay. Now, if I understand the process correctly, the forensic pathologist who is on a particular case will fill out a little form that comes to toxicology that says what he or she wants done as far as the testing is concerned?
A Yes.
Q Is it a form?
A It is a form.
Q Is that form or does that form become a part of the toxicology report?
A That form will not show up as part of the report other than we indicate on the report all of the specimens that we received. So that's the only overlap between those two documents.
Q So if we wanted to see for a particular case what the pathologist involved actually requested originally be done, we would have to see the form?
A Yes.
Q I mean, we can't define that from looking at the toxicology report; is that right?
A No.
Q Where does the form exist?
A The form is placed into the folder, the case file. So an actual manila folder they are

Page 281

placed in.
Q Is that something, if you know, that would be considered a part of the autopsy report?
A I do not believe that that is a part of the autopsy report.
Q Does it go into the Pathways computer, the form or the program sorry?
A For these cases it is scanned into there, but for our, for our medical examiner cases, we have not scanned those in yet.
Q So, again, the place that we would need to go if we wanted to see the form would be the paper individual files?
A Yes.
Q Okay. Now, we talked a lot about the assays that are done. If I understand just very generally, correctly, you go in first to sort of get a yes or no. It is there or it is not. And then you go forward based upon the needs or desires of the pathologist to be more specific and find out by quantifying the individual drugs that are positive?
A No, um, they request the testing up front and we will run our screens and then based on what the screens determine, we move forward with confirmation testing based off of that. The only

Page 282

time we really need to consult the pathologist would be if we don't have sufficient sample to do all of the testing that we need to for confirmations, then we might ask them to prioritize what testing they would like done. Um, or if we detect in one of our screens an analyte that we cannot quantitate in-house, then we could discuss with them whether or not that needs to be sent out for quantitation.

Q So when the pathologist, for example, says do the comprehensive screen?

A Yes.

Q All right. Then you automatically know you are going to do the comprehensive screen. You are going to check for whether it is there and you are going to quantify it if it is there?

A Yes.

Q You will also quantify, look for and quantify additional items that are on the comprehensive test if the pathologist request it?

A Yes.

Q We talked, well, let me ask you this. In your experience with the medical examiner's office in Cuyahoga County, would you agree with me that the majority of the cases that you do toxicology reports on, involve multiple drugs, rather than a single

Page 283

drug?

A I do not know the statistics on that.

Q How would you characterize the answer to the question, how many or what percentage or what proportions of what you see as far as you're aware of as far as the toxicology testing and the results of those tests involve multiple drugs?

A I'm sorry, can you reask?

Q How would you characterize, I ask the question by saying majority. Is it a lot, is it a bunch, is it more now than before, how would you characterize the number that involve multiple drugs?

A Are you asking specifically about overdose cases?

Q Yes.

A Um, yes, I would say there's a lot. I don't know the percentage so I don't know if it is most of them or not.

Q I want to go now to sort of the next level. We are talking about what you screen for and what you are looking at, you get results back. You being the Toxicologist III who is doing the testing for a particular case, okay?

A Yes.

Q So you get the results back and you have

Page 284

finished what you are doing and you have quantified all of the drugs that you have found. Is there a hurdle that you have to jump over before you put them in a report? When you talked about a report, you talked about, am I correct, the initial tox report that you do that you give to the chief toxicologist, is that a correct understanding of the report?

A When I talk about a report, I'm talking about the actual final toxicology report which is generated typically by the chief. So that has all of the results from all the testing that has been completed.

Q All right. Let me break that a little bit of what you just said if I understood. So the report, when you talked about it in your testimony today, when you talk about our report or the report, you mean the final toxicology report?

A Yes.

Q And I want to know, again, how that gets developed. You do the testing. And is it just a straight report from you, you test, you find the drug, series of drugs, you quantify the drug as best you can and you give all of that to the chief toxicologist?

Page 285

A So it is not just me. I will perform whatever assay I'm, that I might need to do on the case, but everybody, depending on what the case is positive for, there will be a number of different analyst who all provide data from different assays that they run.

So, for instance, if it was cocaine and Fentanyl and opiates positive on ELISA, I would run the opiate confirmation, Carrie would run the Fentanyl confirmation and maybe Cassandra would run the cocaine confirmation.

Then we would all individually written up our data for those three specific assays and they have been reviewed by someone else. Then we enter our result in the Pathways. Once all of the results for a case have been entered there is no open testing, then the chief toxicologist can pull that case to review and then generate the final report.

MR. GALLUCCI: Before we get to the next question. I'd like to object for the record for the time. We have seven hours at this point.

MR. EMCH: I've never done that.

THE VIDEOGRAPHER: Let's go off the record.

Page 286

(Off the record.)
THE VIDEOGRAPHER: On the record 5:32.
Q (Mr. Emch) I don't mean this in a pejorative way, from your standpoint as the Tox III, you're the messenger and you do the screens and the testing on the drugs that you find, and you quantify them as best you can and pass that on, you don't make any cuts?
A Um, I don't understand what you are talking about make any cuts, but yes, everything up until that point I understood. Yes, that is what happens.
Q What I mean by cuts, is again, if you don't eliminate any drugs because their present only in a therapeutic level or only at a low level, from your perspective given your background and knowledge, if they're present and you quantify them, they go in what you give to the chief toxicologist?
A Yes. If they meet the requirements for me to report, then that will go into Pathways and that is what the chief toxicologist will get.
Q What are the requirements from your perspective then because I want to make this as quick as I can. I'm just trying to find out if you eliminate anything that comes up in your testing, if

Page 287

you have ten drugs that you are looking for and you find eight of them and you quantify all eight of them, do all eight of them go to the chief toxicologist.
A So if I felt that they could be quantitive then, yes, they would go to him.
We have a lot of criteria that need to be met to be able to report out these analytes. For instance, I was saying before we have a calibration curve. The concentration needs to fall somewhere on that curve to be able to give a quantitative value for that analyte.
Q So that's, I'm sorry, that's a range, right, that's lowest?
A Yes.
Q Okay.
A It also needs to be above the level of detection that we have established in our validation procedures, and that is all in our standard operating procedures.
So if the analyte meets all of our chromatographic requirements, but it is at a concentration less than our LOD, we cannot report those.
In addition to the concentrations,

Page 288

there are chromatographic requirements. So that means the quality of the peak that we are looking at.
So if it does not meet requirements for that, then we won't report it. But normally in those instances I would run a different matrix to try to get that analyte to be able to report it.
So if we feel that it is there and I cannot report it due to some sort of chromatographic interference, I will either repeat that sample or run out another sample from that case to try to get that analyte.
Q All right. But does any part of the process that you go through involve a determination by you that the particular substance that you found and quantified was there in a sufficient level to have caused death?
A I'm sorry, can you ask the beginning part of that question again?
Q Do you make a determination before you report it up that it is there in a sufficient quantity to have caused death?
A I may in my head make that determination, but I don't speak to anyone about that. So there may be a level that I think is extremely high, but

Page 289

other than saying that to the chief or the supervisor that, wow, look at this case, this is really high. No, I don't. I don't make that determination.
Q And this is where I was more directed towards the ones that would be low or lower than rather than extremely high, which is what I meant by cut. You don't make a decision, well, this is not high enough to actually cause a death, so I'm going to take it off. You don't do that?
A No.
Q Does the chief toxicologist do that?
A He can take things off of the report, but it would more typically have to do with the chromatography. So if he is not happy with how it looks and he doesn't feel like we should put ourselves out there and report that.
Q Do you know, well, you had testified, as I recall earlier, about a couple of references that could be used to see what, what literature, what indication folks were willing to give about levels that were therapeutic, ranges were therapeutic and ranges that were lethal.
Do you remember that?
A Yes.

Page 290

Q You mentioned a North Carolina thing?
A Yes.
Q Is there a name for that so we can find it?
A It is on their website. I don't know what the specific name is, but neutral test have a link to a PDF file that they've created and I'm not sure if they have on there where they got these ranges from or not.
Q Where is it, what's the website?
A It is on the website for the medical examiner's office for the State of North Carolina.
Q All right, okay. It is sort of a chart or a spreadsheet of drugs?
A Yeah. If I recall you would click on the toxicology link and it would be located on their page.
Q Did I hear you mention a second one, was the Basalt?
A Yes.
Q Does your office rely upon Basalt?
A Yes.
Q The 11th Edition?
A I don't know what edition we are on right now.

Page 291

Q All right. Now, do you know what process the chief toxicologist goes through, him or herself, or in conjunction with the pathologist involved to make a determination about what drugs that are on the toxicologist report might be implicated in the cause of death?
A I do not know that.
Q All right. Do you know if, then I assume you don't, but I will ask, do you know if a determination is made by the chief toxicologist and the pathologist that each drug that is listed as cause of death alone was sufficient in quantity to have caused the death by itself?
A Can you reask that?
Q Do you know whether or not the chief toxicologist and the pathologist, either alone or in consultation with each other, make a determination with respect to each drug that is listed in the cause of death, that that particular drug in its quantity that was found alone without the others could have caused the death?
A I do not know if that's how they go through the report.
Q In getting the statistics that we talked about, I usually see, usually see the phrase, these

Page 292

drugs are associated with or related to death. If you look at Exhibit 8. Your little charts that are Exhibit 8. There are a couple of charts that occur. They use associated with.
A Yes, I see that.
Q I mean, and I think you said that when those stats are pulled, when those indications are pulled that associate, you're going to come up with a larger number than the total number of deaths for that year because they are going to be counted multiple times if multiple drugs were involved, right?
A Yes.
Q You mentioned a personal experience that has impacted your thoughts about opioid and opioid overdose deaths, that being your uncle?
A Yes.
Q Do you have any other personal experiences yourself related to prescription opioid medications that influence your thoughts or feelings about that?
MR. GALLUCCI: Objection, beyond the scope.
A I'm not sure that I understand the question.
Q (Mr. Emch) Have you ever been prescribed

Page 293

opioids yourself?
A I have.
MR. GALLUCCI: Objection.
Q (Mr. Emch) Have you taken them?
MR. GALLUCCI: Objection.
A Yes.
Q (Mr. Emch) Did you take them in accordance with the instructions and the limitations that were placed on you by your doctor?
MR. GALLUCCI: Objection, have a continuing objection on all questions related to her own prescriptions. Yes?
MR. EMCH: I'm sorry?
MR. GALLUCCI: Can we get a continuing objection to your question.
MR. EMCH: Yes, absolutely.
A What was the last question? If I used them as they were prescribed?
Q (Mr. Emch) Yes.
A Yes.
Q Do you have any friends or family members or have you, yourself taken prescription opioids over a long period of time because of chronic pain?
A No.
Q So you don't have anybody in your family

or any close friends who have done that?
A Um, I don't know if they have or not.
Q All right. Now, do you have any other personal experience, other than your uncle, I guess is the way I put it?
A Um, we had a family friend who overdosed on heroin and also my sister-in-law's ex-boyfriend overdosed on heroin. I think that's all of my experiences with that.
Q And do you know anything about the history of those two?
A Um, the family friend I don't know any of the history. Of my sister-in-law's ex-boyfriend, I do know that he was abusing prescription painkillers before he moved on to heroin. That's all I know though. I don't know his prescribing history or anything like that.
Q How do you know that?
A How do I know that he was using prescription opioids.
Q Uh-huh.
A From my sister-in-law.
Q I'm sorry?
A From my sister-in-law.
Q Did he abuse other drugs too?

A Um, I think so.
Q Did he abuse alcohol?
A I don't know.
Q Marijuana?
A I don't know.
Q Cocaine?
A I think that he had used cocaine.
Q Okay. So those three personal experiences?
A Yes.
MR. EMCH: I think that's all I have.
MR. RICE: No questions for me.
MR. GALLUCCI: No questions here.
THE VIDEOGRAPHER: Off the record at 5:44.
(End of video deposition.)

State of Ohio
SS.
County of Cuyahoga
I, Randy R. Dunn, a Licensed Certified Court Reporter by the Supreme Court in and for the State of Missouri, duly commissioned, qualified and authorized to administer oaths and to certify to depositions, do hereby certify that pursuant to Notice in the civil cause now pending and undetermined in the Federal District Court, State of Ohio, to be used in the trial of said cause in said court, I was attended at the offices of Kelley & Ferraro, 950 Main Street, in the City of Cleveland, State of Missouri, by the aforesaid attorneys; on the 15th day of January, 2019.
The said witness, being of sound mind and being by me first carefully examined and duly cautioned and sworn to testify the truth, the whole truth, and nothing but the truth in the case aforesaid, thereupon testified as is shown in the foregoing transcript, said testimony being by me reported in shorthand and caused to be transcribed into typewriting, and that the foregoing page correctly set forth the testimony of the aforementioned witness, together with the questions propounded by

counsel and remarks and objections of counsel thereto, and is in all respects a full, true, correct and complete transcript of the questions propounded to and the answers given by said witness.
I further certify that I am not of counsel or attorney for either of the parties to said suit, not related to nor interested in any of the parties or the

Randy R. Dunn RPR, CRR, CCR No. 193

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January 18, 2019

To: Anthony Gallucci, Esq.

Case Name: In Re: National Prescription Opiate Litigation

Veritext Reference Number: 3191878

Witness: Claire Kaspar Deposition Date: 1/15/2019

Dear Sir/Madam:

The deposition transcript taken in the above-referenced matter, with the reading and signing having not been expressly waived, has been completed and is available for review and signature. Please call our office to make arrangements for a convenient location to accomplish this or if you prefer a certified transcript can be purchased.

If the errata is not returned within thirty days of your receipt of this letter, the reading and signing will be deemed waived.

Sincerely,
Production Department

NO NOTARY REQUIRED IN CA

DEPOSITION REVIEW
CERTIFICATION OF WITNESS

ASSIGNMENT REFERENCE NO: 3191878
CASE NAME: In Re: National Prescription Opiate Litigation
DATE OF DEPOSITION: 1/15/2019
WITNESS' NAME: Claire Kaspar

In accordance with the Rules of Civil Procedure, I have read the entire transcript of my testimony or it has been read to me.

I have made no changes to the testimony as transcribed by the court reporter.

_____ _____
Date Claire Kaspar

Sworn to and subscribed before me, a Notary Public in and for the State and County, the referenced witness did personally appear and acknowledge that:

They have read the transcript;
They signed the foregoing Sworn Statement; and
Their execution of this Statement is of their free act and deed.

I have affixed my name and official seal

this _____ day of_____, 20____.

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Notary Public

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Commission Expiration Date

DEPOSITION REVIEW
CERTIFICATION OF WITNESS

ASSIGNMENT REFERENCE NO: 3191878
CASE NAME: In Re: National Prescription Opiate Litigation
DATE OF DEPOSITION: 1/15/2019
WITNESS' NAME: Claire Kaspar

In accordance with the Rules of Civil Procedure, I have read the entire transcript of my testimony or it has been read to me.

I have listed my changes on the attached Errata Sheet, listing page and line numbers as well as the reason(s) for the change(s).

I request that these changes be entered as part of the record of my testimony.

I have executed the Errata Sheet, as well as this Certificate, and request and authorize that both be appended to the transcript of my testimony and be incorporated therein.

_____ _____
Date Claire Kaspar

Sworn to and subscribed before me, a Notary Public in and for the State and County, the referenced witness did personally appear and acknowledge that:

They have read the transcript;
They have listed all of their corrections in the appended Errata Sheet;
They signed the foregoing Sworn Statement; and
Their execution of this Statement is of their free act and deed.

I have affixed my name and official seal

this _____ day of_____, 20____.

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Notary Public

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PAGE/LINE(S) / CHANGE /REASON

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Date Claire Kaspar

SUBSCRIBED AND SWORN TO BEFORE ME THIS _____
DAY OF _____, 20_____ .

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Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

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